



**Towards a pedagogical framework for construction of historicity:
a case of using Wikis among pre-service teachers at Makerere University.**

Dorothy Sebbowa

SBBDOR001

Supervisors: Associate Professor Dick Ng'ambi

Dr. Cheryl Brown

**A thesis submitted for the award of the Doctor of Philosophy in Education
at the University of Cape Town, School of Education, Faculty of Humanities**

December 2016

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

DEDICATION

To my mother Mrs. Sebbowa Efrance

To my husband Mr. Kyagaba Godfrey and children, Hansley, Harrison, Hailley and Maxwell

ACKNOWLEDGEMENTS

No words are sufficient to express how grateful I am to everyone who directly and indirectly assisted me in my studies. The gratitude I owe my thesis supervisors, Prof. Dick Ng'ambi and Dr. Cheryl Brown is beyond estimation. Their support, guidance and strict requirements were of immense value for this work. Dick and Cheryl, I cannot emphasize enough the importance of your critical „lens“ and efforts, particularly during the last months of writing my thesis when I was working under high pressure. To Dick, I am exceedingly grateful for all the wise counsel, inspirational advice and mentorship you offered me from the start of the Post Graduate Diploma in Education (PGDE) in ICT onto the PhD in Education.

I am greatly indebted to the Mellon Foundation Scholarship for funding my studies for the PGDE ICT in Education course, which, together with the PhD in Education, has made a difference to my whole life career. In a special way, I would like to thank Mellon scholarship coordinators, Prof. Cheryl Hodgkinson-Williams, Dr. Cheryl Brown, Prof. Dick Ng'ambi and Ms. Wilma Adams for their enormous support; this achievement would not have been possible without their tireless efforts.

I would like to express my gratitude to Dr. Kate Angier from the School of Education, University of Cape Town, for her helpful comments, as well as motivating and interesting discourses on History Education. I am grateful to Prof. Mugagga, Dr. Najjuma, Dr. Mulumba, and Dr. Bisaso all from Makerere University for reading through my work and providing me insightful feedback. I am particularly grateful to the PhD group members at Makerere University; Rebecca, Josephine, David, Nancy, Mary and Julius for the philosophical insights and thoughts that we shared and exchanged.

Throughout the stages of my study, I express appreciation to my family members; mother, sisters, brothers and niece Harriet. I also thank my mother-in-law, aunties; Lydia and Lillian, for taking care of the children while I was away on study. To Hansley, Harrison, Hailey and Maxwell: I am finally done with pressing laptop buttons, „my homework.“ Finally to my dearest husband, Godfrey, I can't thank you enough for the support, patience and standing with me throughout this journey.

2.8 Discourses in History Education.....	27
2.9 Wikis in Education.....	33
2.10 Studies that have engaged with historical hermeneutics.....	37
2.11 Chapter Summary.....	38
CHAPTER 3: PHILOSOPHICAL UNDERPINNINGS.....	39
3.0 Chapter Overview.....	39
3.1 Research paradigms, theoretical and methodological issues.....	39
3.2 Epistemology: constructionism.....	42
3.4 Theoretical perspective: interpretivism.....	43
3.5 Historical hermeneutics theory.....	44
3.5.1 Historicity.....	46
3.5.2 Authenticity.....	48
3.5.3 Fusion of horizons - hermeneutic cycle.....	49
3.5.4 Dialogue.....	51
3.6 Chapter Summary.....	53
CHAPTER 4: DESIGN BASED RESEARCH METHODOLOGY.....	54
4.0 Chapter Overview.....	54
4.1 Overview of research methodology.....	54
4.2 Design Based Research methodology.....	55
4.3 Characteristics of Design Based Research.....	56
4.4 Justifications for using Design Based Research as a methodology.....	57
4.5 The four phases of Design Based Research.....	58
4.6 Application of Design Based Research phases through the entire research process.....	60
4.6.1 Design Based Research phase 1: Identification of the problem.....	60
4.6.1.2 Consultations with researchers and practitioners in collaboration.....	61
4.6.2 Design Based Research Phase 2: Development of solutions informed by existing design principles and technological innovations.....	66
4.6.3 Design Based Research Phase 3: Iterative cycles of testing and refinement of solutions in practice.....	68
4.6.4 Phase 4: Reflection to produce design principles and enhance solution implementation.....	69
4.6 Case study strategy.....	71

TABLE OF CONTENTS

DEDICATION.....	i
ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iii
LIST OF ABBREVIATIONS & ACRONYMS.....	x
LIST OF TABLES.....	xi
LIST OF FIGURES.....	xiii
ABSTRACT.....	xv
CHAPTER 1: INTRODUCTION.....	1
1.0 Chapter Overview.....	1
1.1 Background to the study.....	1
1.2 My Personal Motivation in the study.....	3
1.3 Overview of Emerging Technologies.....	4
1.4 Choice of Wikis as preferred Emerging Technologies.....	7
1.5 Salmon’s five-stage model.....	9
1.6 Overview of historical hermeneutics theory.....	9
1.7 Research questions.....	11
1.8 Overview of the Design Based Research Methodology.....	11
1.9 Envisaged contribution of the study.....	13
1.10 Thesis structure.....	13
1.11 Chapter Summary.....	15
CHAPTER 2: INVESTIGATING THE RESEARCH PROBLEM.....	16
2.0 Chapter Overview.....	16
2.1 The advent and structure of teaching history in Uganda.....	16
2.3 Teaching and learning history as an academic discipline in Uganda.....	18
2.4 The proposed lower secondary curriculum reforms and its constraints.....	21
2.5 Pre-service Teacher Education at School of Education, Makerere University.....	23
2.6. Pre-service teachers.....	24
2.7 Discourses in the conceptualization of history.....	26

4.7 Data collection methods.....	72
4.8 Data analysis.....	75
4.8.1 Step 1: Gaining understanding of the text.....	76
4.8.2 Step 2: Development of themes and sub-themes from the texts.....	77
4.8.3 Step 3: Understanding inter-relationships among themes and sub-themes.....	77
4.8.4 Application of hermeneutic cycle driven analysis steps.....	78
4.9 Ethical considerations.....	81
4.10 Chapter Summary.....	81
CHAPTER 5: THE DEVELOPMENT OF THE DESIGN SOLUTION.....	83
5.0 Chapter Overview.....	83
5.1 Existing draft design principles.....	83
5. 2 Salmon’s five-stage model.....	84
5.3 Crafting design principles through aligning Salmon’s five-stage model and historical hermeneutic theory.....	86
5.4 Considering ETs affordances.....	89
5.4.1 Designing the Wiki meaning-making environment.....	90
5.5 Chapter summary.....	91
CHAPTER 6: FIRST IMPLEMENTATION OF THE DESIGN SOLUTION.....	92
6.0 Chapter Overview.....	92
6.1 Procedure for implementation 1.....	92
6.2 Face-to-face orientation workshop.....	93
6.2 .1 Participants.....	94
6.2.2 Process of identifying the history topic.....	95
6.3 Data collection and analysis procedure.....	96
6.3.1 Step 1 : to enable access and motivation.....	96
6.3.2 Step 2: to promote online socialization.....	99
6.3.3 Personal pre-understanding about history teaching at implementation 1.....	101
6.3.4 Step 3: to support information exchange.....	105
6.3.5 Steps 4 & 5: promote knowledge construction and foster development.....	108
6.9 Lessons learnt from the first implementation of design solution 1.....	109
6.10 Recommendations from the first implementation of the design solution.....	110

6.11 Chapter summary.....	111
CHAPTER 7: SECOND IMPLEMENTATION OF THE DESIGN SOLUTION.....	112
7.0 Chapter Overview.....	112
7.1 Transition between formulated and design principles.....	112
7.2 Mapping table 7.1: unpacking revised design principles.....	113
7.2.1 Step 1: to access and play.....	113
7.2.2 Step 2: to promote online introductions.....	114
7.2.3 Step 3: to share preconceptions about HisEd.....	115
7.2.4 Step 4: to make shared interpretations of history meanings.....	116
7.2.5 Step 5: to support open questioning and clarifications.....	116
7.2.6 Step 6: to support reflections and framing history.....	117
7.3.1 Re-designing & refining Wiki meaning-making environment.....	119
7.3.2 Participants.....	121
7.3.3 Face-to-face orientation workshop.....	122
7.3.4 Face-to-face workshop.....	123
7.3.5 Process of identifying history topic.....	124
7.4 Research findings aligned to revised principles.....	125
7.5.1 Questionnaire.....	125
7.5.2 Section A: background information of participants.....	125
7.6 Section B: construction of historicity on the Hermwiki platform.....	132
7.6.1 Questionnaire findings at step 1: to access and play.....	133
7.6.2 Interview findings at step: to access and play.....	135
7.6.3 Observational findings at step 1: to access and play.....	137
7.7.0 Questionnaire findings at step 2- to promote online introductions: cultural/family history.....	141
7.7.1 Interview findings at step 2: to promote online introductions: cultural/family History.....	150
7.7.2 Observational findings at step 2- to promote online Introductions.....	151
7.8.0 Questionnaire findings at step 3: to make shared interpretations of history meanings.....	155
7.8.1 Interview findings at step 3: making shared interpretations of history meanings.....	162

7.8.2 Observational findings at step 3: to make shared interpretations of history meanings.....	163
7.9. Questionnaires findings at step 5: to support open questioning and clarifications....	167
7.10 A summary of responses to research question 1 as evident in study findings.....	172
7.11 Authenticity of history meanings collectively constructed on a Wiki platform.....	173
7.12 Personal blog reflections in the pre-understanding of History Educationin Uganda.	174
7.13 Questionnaire findings at step 4: preconceptions about History Education.....	174
7.14 Interviews findings at step 4: preconceptions about History Education.....	180
7.15 Observational findings at step 4: preconceptions about History Education.....	181
7.16 A summary of responses to research question 2, as evident in study findings.....	187
7.17 Step 6: to support reflection and framing history.....	188
7.18 Questionnaire findings at step 6: reflection and framing history.....	189
7.19 Interview findings at step 6: reflections and framing history.....	193
7.20 Observational findings: reflection and framing history.....	194
7.20 Chapter Summary.....	195
CHAPTER 8: THIRD IMPLEMENTATION OF THE DESIGN SOLUTION.....	197
8.0 Chapter Overview.....	197
8.1 Refining and retesting step 6: reflection and framing history.....	197
8.2 Participants.....	198
8.3 Face-to-face workshop.....	199
8.4 Procedural process for identifying the history topic.....	199
8.5 Observational findings at step 6: to support reflections and framing history.....	200
8.6 A summary of responses to research question 3 as evident in the changes in design principles.....	209
8.6 Chapter Summary.....	210
CHAPTER 9: REFLECTION OF THE DBR PHASES.....	211
9.0 Chapter Overview.....	211
9.1 Procedural: DBR approach.....	211
9.2 Phase 1: Identification and refinement of the problem by the researcher in collaboration with practitioners.....	211
9.3 Phase 2: development of solutions informed by existing design principles and technological innovation.....	213

9.4 Phase 3: iterative cycles of testing and refinement of solution in practice.....	214
9.4.1 Reflection on the first implementation of design solution.....	214
9.4.2 Reflection of the second implementation of the design solution.....	216
9.5 Reflection of findings aligned to responses to the research questions.....	217
9.5.1 Construction of historicity on a Wiki platform (discussion of findings).....	217
<i>Step 2: to promote online introductions.....</i>	219
<i>Step 3: to make shared interpretations of history meanings.....</i>	221
9.5.2 Authenticity of history meanings on the Wiki platform.....	223
<i>Step 4: to support preconceptions about History Education.....</i>	223
<i>Step 5: to support open questioning and clarifications.....</i>	224
9.6 Reflection of the third implementation of the design solution.....	225
9.7 DBR phase 4: reflection to produce design principles and enhance solutions.....	227
9.8 Issues of quality in this research.....	229
9.8.1 Credibility.....	229
9.8.2 Dependability.....	231
9.8.3 Transferability.....	231
9.9 Chapter Summary.....	232
CHAPTER 10: THE THESIS CONTRIBUTION.....	233
10.0 Chapter Overview.....	233
10.1 Review of the overall research process.....	233
10.2 Theoretical contribution of the research.....	234
10.3 Practical contribution of the research.....	237
10.3.1 Connecting to the present.....	237
10.3.2 Appreciating heritage.....	238
10.3.3 Validating history.....	239
10.3.4 Dialogue in history.....	240
10.3.5 Doing history.....	241
10.3.6 Applying history.....	241
10.4 Reflectivity and researcher positionality.....	246
10.5 Implication of research.....	248
10.5.1 Implication to researchers.....	249

10.5.2 Implications to history educators and teachers.....	250
10.6 Limitations of the study.....	251
10.7 Conclusions of the study.....	252
10.8 Recommendations for further research.....	254
10.9 Final words.....	255
REFERENCES.....	256
APPENDICES.....	269

LIST OF ABBREVIATIONS & ACRONYMS

A Level	Advanced Level
CEES	College of Education and External Studies
CURRASE	Curriculum, Assessment and Examination Reform Programme
DBR	Design Based Research
ET	Emerging Technology
FGM	Female Genital Mutilation
HSM	History Methods
ICT	Information and Communication Technology
NCDC	National Curriculum Development Centre
O Level	Ordinary Level
PGDE	Post Graduate Diploma in Education
	Post Graduate Diploma in Education and Information and Communication
PGDE ICT	Technology
P&B	Prejudices and Biases
UACE	Uganda Advanced Certificate in Education
UCT	University of Cape Town
UNEB	Uganda National Examination Board

LIST OF TABLES

Table 1. 1: Outline of the study	15
Table 4. 1: Characteristics of DBR (Source: Wang and Hannafin, 2005).....	56
Table 4. 2: An analysis of comments from the practitioners	63
Table 4.3: How the DBR phases were applied throughout the chapters of the entire thesis	70
Table 4. 4: Types of case studies	71
Table 5. 1: Formulated design principles.....	89
Table 5. 2: ETs Affordances Analysis (modified from Bower, 2008).....	90
Table 6. 1: Face-to-face orientation workshop activities.....	93
Table 6. 2: Participants' background information at Implementation 1	94
Table 6. 3: Participants' activities at step 1- access and motivation.....	98
Table 6. 4: Participants' activities at step 2-online socialization.....	105
Table 6. 5: Participants' activities at step 3-Information Exchange	108
Table 7. 1: Transition changes from formulated to revised design principles.....	112
Table 7. 2: Potential affordances PBWiki and Wikispaces (modified from Bower, 2008).....	119
Table 7. 3: Participants' background information at implementation 2.	126
Table 7. 4: Findings from participants' engagement with social networks	128
Table 7. 5: Findings from participants' initial introduction to ICTs in pedagogy	131
Table 7. 6: Findings from questionnaire question 1&2	133
Table 7. 7: Participants' activities at step 1-Access and Play.....	139
Table 7. 8: Findings from questionnaire question 3a.....	142
Table 7. 9: Findings from questionnaire questions 4, 5, 6.....	145
Table 7. 10: Findings from questionnaire question 7a.....	148
Table 7. 11: Findings from questionnaire question 7b	149
Table 7. 12: Participants' activities at step 2: to promote online Introductions	153
Table 7. 13: Findings from questionnaire question 8	155
Table 7. 14: Findings for questionnaire question 9.....	158
Table 7. 15: Findings from questionnaire question 11	161
Table 7. 16: Participants activities at step 3: making interpretations of history meanings.....	165
Table 7. 17: Findings from questionnaire question 13	169

Table 7. 18: Findings from questionnaire question 7b	171
Table 7. 19: Findings from questionnaire question 20b	Error! Bookmark not defined.
Table 7. 20: Participants' activities at step 4: Preconceptions about History Education.....	183
Table 7. 21: Findings from questionnaire question 21b	185
Table 7. 22: Questionnaire findings at step 6- reflection and framing history	191
Table 8. 1: Participants' background information at implementation 3.....	198
Table 8. 2: Participants' activities at step 6- to support reflections and framing history	203
Table 8. 3: Participant tasks 3 and 4 with related students' responses (activities)	206
Table 8. 4: Formulated design principles, revised design principles and final guidelines.....	22109
Table 9. 1: Responses to research questions linked to revised principles ...	Error! Bookmark not defined.
Table 9. 2: Reflecting changes of the three implementations mapped by DBR phase 3	Error! Bookmark not defined.
Table 10.1: Differences between Salmon's Five-Stage model and the guidelines for history using ETs- (Wikis).....	236
Table 10.2: A Summary of the Practical Contribution	244

LIST OF FIGURES

Figure 3. 1: Basic elements of the research process (Source : Crotty, 1998:4)	39
Figure 3. 2: Basic elements of the current research process (modified from Crotty, 1998).. Error! Bookmark not defined.	
Figure 4. 1: Four phases of DBR (Source: Reeves, 2006: 59).....	59
Figure 4. 2: Excel data analysis extract 1	79
Figure 4. 3: Excel data analysis extract 2	79
Figure 4. 4: Daily reflections extract	80
Figure 5. 1: Salmon’s Five-stage model for e-Learning (Source: Salmon, et al., 2010:170).....	84
Figure 6. 1: Observational findings at step 1- access and motivation	97
Figure 6. 2: Observational findings at step 2- Pre-engagement Task	100
Figure 6. 3: Observational findings at step 2-Preconceptions about history teaching	102
Figure 6. 4: Observational findings at step 3- Online discussions on neocolonialism	107
Figure 6. 5: Observational findings at step 3-Information exchange using images.....	107
Figure 7. 1: Screen shot of History Education Hermwiki class site	118
Figure 7. 2: Observational findings at step 1- Access and play	137
Figure 7. 3: Observational findings at step 2- to promote online Introductions	152

Figure 7. 4: Observational Findings at step 3: Making shared interpretations of history meaning	163
Figure 7. 5: Observational findings at step 4: preconceptions about History Education.....	181
Figure 7. 6: Observational findings at Reflections and Framing History	188
Figure 8. 1: Implementation 3: Aligning History Education to Lived Experiences	200
Figure 8. 2: Pictorial images shared on Slave Trade in East Africa	201
Figure 10.1: Theory driven Pedagogical Framework for teaching history using Wikis-ETs....	245

ABSTRACT

This thesis originates from the realization that the pedagogy of history is becoming *dangerously obsolete*, as it does not always relate to the contemporary needs of 21st century learners, who often find learning history irrelevant to their present situation. This challenge is attributed to, among other reasons, the way history is taught employing largely behaviorist pedagogies with significantly reduced active learner engagement and little alignment to the way today's students learn. Gadamer's historical hermeneutic theory was employed to advocate for a dialogical approach between the past (part) and the present (whole) mediated by Emerging Technologies, specifically Wikis. Thus, the study is guided by three research questions: firstly, how is historicity constructed on the Wiki platform among pre-service teachers at Makerere University? Secondly, how is authenticity of history meanings constructed among pre-service teachers? Thirdly, what design principles guide a pedagogical framework for construction of historicity?

A Design Based Research Methodology (DBR), with theoretically informed solutions aligned to the study problem, was used among pre-service teachers enrolled at Makerere University, Uganda, for the period 2013-2016. Consequently, four phases of DBR were employed: identification of the problem by the researcher in collaboration with practitioners; development of solutions informed by existing design principles and technological innovation; iterative cycles of testing and refinement of solutions and finally, reflection to produce design principles and enhance solutions (Reeves, 2006). Data from questionnaires, interviews and observations on the Wiki was gathered and analyzed through a hermeneutic cycle-driven analysis during DBR phase three. Key findings demonstrated that historicity is constructed through dialogical engagements between educator/researcher and students mediated on the Wiki. Authenticity of history meanings is achieved through collaborative editing, reviewing and sharing understandings on a

Wiki. The practical contribution of this research lies in the creation of design principles (i.e. connecting with the present, appreciating heritage, dialogue in history, doing history, validating history and applying history) and a pedagogical framework to be used for the construction of historicity mediated by Wikis, while the theoretical contribution lies in the methodological approach of using DBR to systematically implement and operationalize historical hermeneutics theoretical constructs in History Education in the Ugandan context.

CHAPTER 1: INTRODUCTION

1.0 Chapter Overview

This chapter presents a general outlay of the systematic processes followed towards the creation of a pedagogical framework for construction of historicity mediated by emerging technologies (ETs). The chapter begins by providing the background to the study, my personal motivation and research questions together with the significance of conducting the study. A general overview of the Design Based Research (DBR) methodology, historical hermeneutics theory, and ETs focused on identification of Wikis as a preferred tool for dialogue is presented. The Wiki activities are sequenced and structured using Salmon's five-stage model. The chapter concludes by providing the envisaged contribution of this research together with a tabular description of the thesis.

1.1.1 Background to the study

General pedagogy in higher education (Becher & Trowler, 2001), particularly the History Education discipline, is more theoretical than practical, with little or no emphasis on making history meaningful to present day circumstances. Perhaps this is one of the reasons why today's students find learning about the past boring and irrelevant to their lives (Bennmayor, 2008; Savich, 2009; Haydn, 2010; Stockdill & Moje, 2013). Consequently, Haydn (2010) argues that the issues and concerns that preoccupy young people living in the 21st century are limiting studying history. Haydn further asserts that both pre-service and in-service history teachers don't provide the benefits that students will derive from fragments of the past. Thus, most students today do not understand the importance of studying History Education as they don't find it useful to their lives at all (Haydn, 2010; Haydn, Stephen, Arthur & Hunt, 2015).

For the purpose of the study, I conceptualize History Education as a shared interpretation of and learning about the human past that is useful to discuss the present and to project understanding onto what the future might be like (Husbands, 1996; Husbands, Kitson & Pendry, 2003; Sebbowa, Ngambi & Brown, 2014). Reports on the current state of History Education around the world, particularly in Africa, consistently indicate a predominant

use of the behaviorist methods as instructional approaches, both at the secondary and higher education level. This is reflected in constrained dialogue between students and teachers and wide-content coverage drawn primarily from textbooks, focused on passing examinations (Dramani-Issifou, 2010; Historical Association, 2007; Konate, 2010; Maloy & LaRoche, 2010). Behaviorist methods involve dominant teacher-centered methods of instruction viewed with a benefit of supporting the introduction of new concepts, wide-content coverage and summarizing important concepts during the pedagogical process. However, such pedagogical methods favor passive learning, with knowledge perceived as a focus on one correct answer, and limited class interaction of cramming and repeating history facts, thus favoring a content-knowledge curriculum (Voet & Dewver, 2016). My argument is that, such activities enhance lower order thinking skills that are in most cases delinked from students' daily lives. Similarly, research on History Education indicates that using behaviorist approaches, such as the traditional lecture, single handedly miss out on key components and skills; there is no enduring dialogical conversation between past, present and future; no analytical and meaningful reflection or interpretation, and that these approaches do not enhance historical thinking (Adeyinka, 1991; Vansledright, 2004; Savich, 2009; Takako, 2011; Apostouli, 2012; Harris & Girard, 2014; Sebbowa, et al., 2014; Voet & De wever, 2016). Moreover, such behaviorist methods neither provide a foundation nor a conducive environment for skills and knowledge necessary for preparation of effective pre-service history teachers (Mulumba, 2016).

Correspondingly, recent reports from, Ministry of Education Science Technology and Sports, Republic of Uganda, (2015), Makerere University, and school practice (Kagoda, 2011, Kagoda & Itaaga, 2013) all reveal that students are not performing well because they are not engaged in a disciplinary understanding of the past both at the secondary and teacher education level. The limited understanding and memorization of history is also evident in the nature of history assessments both at primary and secondary levels set by the UNEB (Sebbowa et al., 2014). Many of the assessment questions only look for factual answers without reflecting on a meaningful understanding of historical events that could be applied to solving problems in a real life setting. To this end, Clegg, Bregman and Ottevanger (2007) observed that most history textbooks in Uganda are oriented

towards rote learning with limited student activities, and are flooded with mechanical examination questions and answers that conspire to ensure good grades but limited interpretation of the subject content.

Thus, the next section highlights my personal motivation to engage in this research.

1.2 My Personal Motivation in the study

My personal interest in conducting this study was influenced by different experiences I have had as a student, a secondary school history teacher and a teacher educator (researcher). As a student, I found history to be discipline-content based, with too many facts that didn't relate to or were detached from present situations. As a result, I always thought that learning about the past was useless and would never have any influence on my life. As a teacher, I found history too detailed and content-based, yet it was mandatory for teachers to cover the full syllabus within the stipulated time. This forced me to dictate notes to my students who always confessed that they found history lessons boring and they did not think history would be relevant in their futures. This, perhaps, explained the low grades they obtained in history examinations.

Then in 2011, as a Post Graduate Diploma student of Information and Communication Technologies in Education (PGDE ICT), I completed nine months of training. During this, I was able to explore and utilize the potential affordances of ETs such as Mobile phones, Blogs, and Wikis in improving the quality of History Education during the research projects we were given. This journey with the PGDE ICT shaped my thinking about the possibility of engaging with technology to improve history pedagogy.

As a teacher educator and researcher, I have been concerned that, future generations of students will lose out on learning knowledge of the past because of current pedagogical methods. Hence, my research concentrated on possible ways of improving on how history is taught. Moreover, as a teacher educator at university, I tutor a history methods course that initiates pre-service teachers to embrace multiple pedagogical approaches in history classrooms to cater for the diverse learning styles of their future students. It has been

argued that what is taught in methods courses during the teacher education programmes is predominantly disconnected from teachers' classroom practices and in most cases delinked from students' needs (Cochran, 2010; Ragland, 2014). This suggests that learning about the past ought to be dialogically interpreted between the educators (teachers) and students, as a way of linking to students' thinking and thus focusing on their interest in history.

This research is timely given the fact that 21st Century learners are in a continuous state of attaching meanings to events as they unfold, using existing ETs. For example, students participated in interpreting Uganda's history at the February 2016 elections event by recording videos, pictures and exchanging texts enabled by the potentials of ETs. Exposure to ETs have had a great influence on the way today's students learn (Ng'ambi, 2013). Thus, my motivation and interest to engage in this study was driven by the need to explore how ETs could mediate dialogical constructions of history meanings with the rationale of improving the quality of History Education.

Therefore, following my background and lived experiences, my thesis posits that unless contemporary students are engaged in dialogical conversations that allow them to engage in meaning-making using ETs available to them, there is a significant risk of losing knowledge of the past, and that the interest in learning of history will continue to dissipate from generation to generation.

That said, the proceeding section presents ETs as the proposed intervention in the teaching and learning of history.

1.3 Overview of Emerging Technologies

The government of Uganda recognizes the important role ETs (ICTs) play in improving the quality of Education while also introducing new learning methods (ICT policy, 2012) . This policy highlights the need to integrate ICT in main stream teaching and learning. Correspondingly, the policy illuminates the high diffusion of ETs across the different social –economic status such as the increase in use of social media for communication and educational purposes; use of e-commerce to stimulate economic growth among

others (Ibid, 2012). I argue that, there ought to be a linkage between the government policies on ETs and pedagogy generally particularly History Education.

However, anecdotal evidence indicates that history pedagogy is constrained both in terms of creativity and innovation. It appears that most history teachers are slow to embrace ETs that have the potential to bring the past into conversation with the present. Their slow response may become an impediment to improving the quality of learning history since today's students increasingly need to be taught using ETs aligned to the way they learn (Ng'ambi, 2013). Rather than simply teaching students about our human past (Sebbowa et al., 2014:25), contemporary history educators (Haydn, 2001: Hillis & Munro, 2005: Haydn & Barton, 2008; Zin Yue & Jaafar, 2009; McCall, 2013) seek to focus on collective interpretation and on making meaning to history using existing ETs (Haydn et al., 2015). They view this approach as relevant in the current study of history, because not only does it enhance innovation and creativity, but it also provides a powerful motivational tool that mediates dialogue between the past and the present. (Haydn, 2011)

Consequently, embracing the use of ETs provides an opportunity to link the past to the present and can be a way of convincing students that the past is vital and relevant in their lives (Kuo, Song, Smith & Frankin, 2007 Hadyn, 2011). However, although the integration of ETs into pedagogy has been seen as a way of making methods of engagement accessible (Bozalek, Ngambi, & Gachago, 2013); foregrounding student centered approaches (Gachago, Ivala, Backhouse, Bosman, & Bozalek & Ng'ambi, 2013); changing teachers' pedagogical practices (Tarling & Ng'ambi, 2016) while also connecting to learners' interest in the present. There are still vivid tensions and contradictions about the actual meaning of the concept of ET as it is often misunderstood (Gachago et al., 2013; Siemens & Tittenberger, 2009; Veletsiano, 2010); coupled with the overarching concern on the role of higher education given that, majority of students now own ETs such as mobile devices and are socially connected (Ng'ambi, Brown, Bozalek, Gachago, & Wood, 2016).

Different researchers in Higher Education have conceptualized ETs differently. For example, Siemens & Tittenberger, (2009) view ETs as web 2.0 social technologies such as Blogs, Wikis, Skype, Facebook and Google Reader, which are used in communication, creation, sharing and interacting with content. Gachago et al., (2013: 103) shared an understanding of ET as the domain of a few individuals who have the impulse to innovative pedagogy. While Veletsiano (2010) conceptualizes ETs as tools, ideas and advancements utilized in varied education settings to serve varied education-related purposes. Following the above views and conceptualizations of ETs, I align with Veletsiano's concept of ETs, as I believe that ETs such as social media, Open Educational Resources, and Wikis can be utilized in different contexts to serve specific educational or discipline-related purposes. For example, in this study I draw on ETs, particularly Wikis in History Education to serve a discipline-specific purpose of mediating dialogical conversations between educator and students, focused on linking the past to the present. In agreement with this view, Maloy, Poirier and Smith and Edwards (2010) postulate that choosing a technology closely aligns to how that technology supports institutional objectives and student learning needs. This implies that there is a need to take into account the nature of the subject discipline (Haydn, 2001) and how it relates to student learning.

Literature highlights that technologies have been frequently used history pedagogy for different benefits. Firstly, a study carried out on trainee teachers' abilities to use ICTs (also called ETs) (Gachago et al., 2013) in subject teaching revealed that science trainee teachers utilized ICTs for data logging software, science simulations and modeling software, while history trainee teachers used ICTs for interactive PowerPoint presentations, integrating sounds, pictures and animations to establish history and Internet resources (Haydn & Barton, 2006). Thus ETs offer varied potential benefits to subject-discipline purposes and context-specific domains (Veletsiano, 2010).

Secondly, researchers Zin, Yue and Jaafar (2009) and McCall, (2013) found that Digital Game Based Learning (video games and computer games) model foster history learning with an entertained experience as opposed to the memorization and recitation of history facts reminiscent in history classrooms in Malaysia and the United States respectively.

Thirdly, the affordances of the Internet and CD-ROMS were useful in accessing primary and secondary sources of evidence about the past (Hillis & Munro, 2005; Hadyn, 2011) and also helped develop historical websites (Lee, Doolittle, & Hicks, 2006). Subsequently, ICT functionalities like word processors, data files, and Power Point Presentations have been used to get learners problematize historical events, personalities and construct multiple interpretations about the past (Hillis & Munro, 2005). Such functionalities have also helped learners document, classify and present historical information (Hills & Munro, 2005; Hadyn & Barton, 2006), while searching for patterns of the past (Haydn & Barton, 2006). Moreover, the potential affordances of specific ET tools such as blogs enhancing historical thinking and understanding, and Wikis fostering historical skills in sources analysis, (Macdonald & Black, 2010) have also been realized in History Education.

However, these authors did not look at the possibility of using ETs to address the persistent engagement with teacher-centric pedagogies in history classrooms that has resulted in passive learning and loss of interest in History Education. This study aims to contribute to this conversation by investigating the use of ETs, particularly Wikis, to enhance dialogical conversations aligning the past to the present among educators and students at Makerere University.

Having presented an overview of ETs above (see section 1.4), the proceeding section illuminates Wikis as the preferred choice of ET.

1.4 Choice of Wikis as preferred Emerging Technologies

Wikis are web applications that allow multiple authors to collaboratively add and edit content, inviting dialogical conversations between teachers and students to collaborate in new roles as writers and reviewers (Maloy, Poirier & Edwards, 2010).

My key arguments for using Wikis in this research are twofold: firstly, Wikis contain an affordance function of preserving history versions and of tracking changes through evolution and progression of raw concepts and ideas (individual interpretations) into shared understandings. Secondly, Wikis facilitate fostering and sustaining collaborative

versions of history from which meanings can be continually edited, iterated and revised through a dialogic process of validated meanings (Sebbowa, et al., 2014). This is relevant in creating harmony through shared negotiations focused on linking the past to the present among students-students and students-educators at a particular time.

The most popular useful example of a Wiki is Wikipedia¹. The word Wiki comes from Hawaiian and means „fast“ or quick (Konieczny, 2007:16). Ward Cuning created the first Wiki in 1995, following the successful implementation of Wikipedia (ibid, 2007). Teachers can easily work with Wikis since they do not need any technical software to install and can be easily edited. By default, Wikis are designed to support interactions and allow teachers and students to jointly edit anything (ibid, 2007). Moreover, Wikis enhance students“ interest in history (Monte-Sano & Budano, 2013) through interpreting images, videos and pictures as representations from the past that can be sustained and transferred from one generation to another. This therefore implies that Wikis have the potential to mediate conversations between the past (relics left) and the present (students and educators).

However, studies conducted by Cole, (2009) and Hadjerrouit, (2014) revealed that Wikis are not inherently collaborative even though they possess features that facilitate collaborative writing and learning. They proposed that greater teacher scaffolding, guidance and creation of accompanying instruction handouts would be used for successful implementation of Wikis for pedagogical purposes. My argument is that, for Wikis to be effective in the teaching and learning process, the roles of the educator and the student ought to be illuminated. Therefore, to demonstrate meaningful history conversations between the educator and students on the Wiki, I engage with Salmon, (2002) five-stage model as a guiding framework to ensure appropriate scaffolding of the Wiki users and provide technical support, while also illustrating students“ roles (Su & Beaumont, 2010).

¹<http://www.wikipedia.org/>

1.5 Salmon's five-stage model

Salmon's five-stage model is a strategic approach to structuring course content and conversations on the basis of a natural stage-by-stage progression that a student is likely to go through in online learning (Wright, 2014; Wright, 2015). Salmon's five-stage model was deemed relevant in illustrating how participants in the Wiki learning environment can benefit through dialogue, networking and collaboration, while also highlighting the roles of the educator and student at each stage with an aim of enhancing learning (Salmon, 2013; Wright, 2015). Salmon's model (2002:180), also known as the progression five steps, includes "access and motivation, online socialization, information exchange, knowledge construction and development." At each of the stages there are proposed activities to ensure dialogue and conversations between the educator and students to promote insightful learning.

In the context of my study, the researcher and students have the potential to engage in a collaborative dialogue mediated by Wikis that can lead to collective construction of historicity. From this point of view, engagement in dialogue is relevant in attaching meaning to the past events viewed through the lens of the present by listening to students' thinking, as opposed to my study problem (see, sections 1.1 and 1.2). For purposes of this thesis, dialogue is viewed as listening to each other's views, finding ways to agree or disagree and to accommodate ideas, while exploring new ways of thinking (Gadamer, 2004).

The next section presents an overview of historical hermeneutics theory, highlighting dialogue as a fusion of horizon between the past (educator) and the present (students).

1.6 Overview of historical hermeneutics theory

Historical hermeneutics theory is associated with the German philosopher Hans Geog Gadamer (1900-2002). Gadamer was a professor of philosophy at the Universities of Leipzig and Heidelberg (Gadamer, 1975: Abadía, 2011). His main ideas are presented in a book initially written in German - *Wahrheit und methode*- and translated into English (1975) under the title *Truth and Method* (Gadamer, 1975: 2006). Historical hermeneutics

offers a dialogical conversational process between the past and present mediated by Wikis (Gadamer, 2004; Gander, 2015). For the purposes of this research, I use the term Gadamerian historical hermeneutics theory synonymously with historical hermeneutics theory, with Gadamerian historical hermeneutics theory alluding to understanding being a unity of shared dialogue created by listening to the other's voice (Sebbowa et al., 2014).

My argument is that dialogue, in the form of questions and answers between students-students and students-educators, explores the unknown opinions, students' thinking and new experiences that are vital in History Education. Moreover, the Gadamerian hermeneutic approach views learning as an open, dialogic process embedded within multiple realities with almost endless prospects (Gadamer, 2004; Sebbowa, et al, 2014; Risser, 2015). I draw on historical hermeneutics' key theoretical constructs, historicity and authenticity, to give me the language to understand and describe the derived solutions to answer my study problem outlined in section 1.1 and 1.2 above. This study closely aligns with the conceptualization of historicity as an understanding of authentic knowledge claims about the past (tradition), as opposed to historical myth, legend and fiction (Gadamer, 2004). Therefore, in trying to reach understanding, a fusion of horizons is required as a means through which the past is constantly assimilated and interpreted (Crotty, 1998; Abadia, 2011).

Following the Gadamerian views of obtaining dialogical understanding, I define authenticity as a means of obtaining validation through listening to multiple views and analyzing different sources of evidence from the past. Given that validation is achieved through listening to each other's views and perspectives, I closely align dialogue with authenticity. Subsequently, from the historical hermeneutics key constructs of historicity and authenticity, I derive the first two research questions while the third question is relevant in guiding the creation of design principles for construction of historicity.

1.7 Research questions

- How is historicity constructed on a Wiki among pre-service teachers at Makerere University?
- How is authenticity of history meanings achieved among pre-service teachers?
- What design principles guide a pedagogical framework for construction of historicity?

These research questions envision historicity and authenticity as the key areas of contention and inquiry in this research. Moreover, through the Gadamerian lens, these two constructs are interrelated and feed into each other. For example, historicity is achieved through shared understanding constructed through dialogue by listening to another voice (view) focused on obtaining multiple views and perspectives, thus achieving authentication. Therefore, underpinned by historical hermeneutics theory (Gadamer, 1975), my argument is that unless History Education is dialogically interpreted and constructed using current understandings of its perceived value, students' motivation to learn will continue to dissipate over time and each generation of students might remain challenged (Sebbowa, et al., 2014).

The next section situates the study within the DBR methodology.

1.8 Overview of the Design Based Research Methodology

The study adopts the DBR methodology (Brown, 1992; Barab & Squire, 2004; McKenney & Reeves, 2012), particularly the educational domain viewed appropriate to create research-based solutions to authentic problems in the pedagogical practice (Akker, Bannan, Kelly, Nieveen & Plomp, 2013). These statements suggest that educational researchers ought to transfer data findings from the field to solve classroom problems, with an aim of improving the pedagogical process. For the purposes of this study, DBR is described as "a series of approaches with the intent of producing new theories, artifacts and practices that account for and potentially impact on learning and teaching in naturalistic settings" (Barab & Squire 2004:2). DBR makes provision for an environment in which the educator iteratively studies the students' learning process in a practical and

realistic learning situation. Studies conducted through DBR methodology in Tanzania with a similar educational context like Uganda have revealed promising benefits (see, Mufumiko, 2006; Maro, 2013).

My study was guided by the four phases of DBR: identification of the problem by the researcher in collaboration with practitioners, development of solutions informed by existing design principles and technological innovation, iterative cycles of testing and refinement of solutions, and reflection to produce design principles and enhance solutions (Reeves, 2006:59).

DBR was relevant for the History Education context study problem highlighted above because it aimed to engage with historical hermeneutics theory informed research-based solutions. This is in agreement with Akker et al., (2013), who suggest that DBR is appropriate for identifying effective methods of collaborative learning to address challenges and improve practice at the pedagogical level. Akker et al further argue that an effective DBR methodology is supported by a projection in the quality of data afforded by a triangulation of data collection methods.

In this study, purely qualitative data from observations on the Wiki Site, the interview guide, and the semi-structured questionnaire were gathered and analyzed using a hermeneutic cycle driven analysis. Subsequently, I aligned the historical hermeneutics theory with Salmon's five-stage model to come up with the design principles. These were relevant and undertaken through a procedural process that guided the activities of the design solution to address my research problem. To this end, Herrington & Reeves (2011) argue that design principles enable educators and instructional designers to use well-researched ideas as guidelines for their own efforts to increase student interactions and learning outcomes. The next section highlights the study contribution.

1.9 Envisaged contribution of the study

Studies on History Education in Uganda have addressed a number of problems in pedagogical contexts and have suggested measures for intervention (Takako, 2011; Nabushawo, 2013 ; Kakeeto, Tamale, & Nkata, 2014). However, little has been done to address the predominant use of behaviorist approaches in history classrooms (study problem). Following the DBR approach, this study aims to formulate theoretically grounded design principles as a means of offering a systematic approach to address the study problem in the context of higher education in Africa in general and Makerere University in particular. Moreover, the design principles were undertaken through a procedural process that resulted in a practical output reflected as a pedagogical framework for construction of historicity using Wikis. In view of these arguments, I infer that the possible contribution of this study springs from its attempts to make practical and theoretical contributions. Practically, this research aims to design a pedagogical framework for construction of historicity mediated on a Wiki, which could be relevant in providing guidelines for teachers in the 21st century to connect to their students by using Wikis aligned to the way students learn. Educators, pre-service and in-service teachers within similar contexts of the study could be able to use the pedagogical framework as a practical guideline for teaching history in an exciting way relevant to learners. The theoretical contribution lies in the methodological approach of using DBR to implement systematically historical hermeneutics theoretical constructs in history pedagogy in the Ugandan context.

1.10 Thesis structure

It is important to mention that my thesis was guided by the DBR procedural process reflected in table 1.

Chapter highlight	Description of chapters
Chapter 1: Introduction	This chapter provides a background to the study by identifying and exploring the educational problem. Research questions to solve the problem are proposed and the key concepts used in the study are introduced by providing overviews of the historical hermeneutics, ET-Wikis, Salmon's five-stage model and DBR methodology. The chapter concludes by providing the envisaged contributions of the thesis.
Chapter 2: Investigating the Research Problem	The pre-service teacher context of History Education from which the study problem arises is presented. A highlight of the gaps in literature is illuminated together with the unending discourses in history pedagogy.
Chapter 3: Philosophical Underpinnings	This chapter presents the general thinking behind the study, adopted from Crotty (1998:4) framework; epistemological stance presented as constructivism: theoretical underpinnings-Interpretivism particularly historical hermeneutics: Research Methodology as the DBR approach and the Method presented as the Case study strategy. The chapter concludes with data-collection methods: questionnaires, interviews, observations and personal blog reflections.
Chapter 4: DBR Research Methodology	This chapter begins by introducing DBR as the research methodology. Justifications for engaging with the research approach are highlighted. An application of DBR phases within the study as influenced by Reeves, 2006, is presented. The chapter concludes by illustrating how the DBR process was utilized throughout the thesis.
Chapters 5: Development of the Design Solution	The design solution (intervention at DBR phase 2) is proposed as ETs-Wiki (Wikispaces). Salmon's five-stage model provides the existing design principles that sequenced the pedagogical activities of the Wiki design solution. The chapter concludes by presenting an alignment between Salmon's five-stage model and the hermeneutic theoretical construct that resulted in formulated design principles.
Chapter 6: First Implementation of the Design solution	This chapter presents the first implementation of the design solution, tested and evaluated on the design solution (Wikispaces) and premised on the formulated design principles.
Chapter 7: Second Implementation of the Design	The second implementation of the design solution is tested and evaluated on the design solution (Hermwiki) premised on the

solution	revised design principles.
Chapter 8: Third Implementation of the Design solution	Third implementation of the design solution is tested and evaluated on the design solution (Hermwiki) premised on the proposed guidelines for teaching history.
Chapter 9: Reflections on DBR phases	A reflection of the DBR phases employed throughout the research is presented. Particular emphasis is placed on the transition changes of the designed principles premised on Salmon's five-stage model. The chapter illuminates the discussion of findings as aligned to responses to the research questions.
Chapter 10: Thesis contribution	The practical and theoretical contribution of the research for constructing historicity mediated by ETs, particularly Wikis, is presented.

Table 1. 1: Outline of the study

1.11 Chapter Summary

Chapter 1 introduced the key highlights of my study, which investigates the construction of historicity on a Wiki in the pre-service teacher education context at Makerere University. I discussed the study problem, my personal motivation for engaging in the study, and an overview of ET with Wikis as the preferred choice. Salmon's five-stage model was presented together with an overview of the historical hermeneutics theory. I located the study within the DBR Research Methodology. Lastly, I outlined the envisaged practical and theoretical contributions and provided a short narrative of the entire study.

The next chapter introduces the teaching and learning of history in the Ugandan context from which the problem arises, while also highlighting the gaps in the literature that creates the niche for my study.

CHAPTER 2: INVESTIGATING THE RESEARCH PROBLEM

2.0 Chapter Overview

Following the identification of the research problem in chapter one (see section 1.1), in this chapter, I synthesize literature with the aim of characterizing the nature of the research problem within the context presented. The chapter provides a background to the highlighted research problem by describing a transition of teaching and learning from the past pre-colonial Uganda to the present. Furthermore, a gap that provides a niche for pedagogical framework in Uganda is illuminated. The chapter concludes by conceptualizing history and reviewing the discourses in History Education, historical hermeneutics and Wikis in education.

2.1 The advent and structure of teaching history in Uganda

Education in Uganda has gone through three distinct phases: the pre-colonial phase, before 1877, the colonial phase, also known as the missionary phase from 1877-1962, and the post-colonial phase from 1962 to date. The different time phases yielded three distinct forms of education - formal, non-formal and informal (Muyanda-Mutebi, 1996). Formal education is hierarchically structured and aligned to educational training institutions inherited from the missionaries during the colonial period. Non-formal education is obtained through community groups and other organizations, while informal education caters for teaching children through everyday experiences, predominantly practiced during pre-colonial Uganda (Zaki Dib, 1988; Ministry of Education and Sports, 2001; Takako, 2011).

In pre-colonial Uganda (before 1877), teaching the past was culturally oriented and normally conducted through telling of stories, proverbs and songs normally conducted in the evening when the experienced adults sat around a fire with the children (Muyanda-Mutebi, 1996: Takako, 2011). Learning was achieved through every day experiences by observing change in behavior and implementing what elders said, with oral tradition and poetry playing a significant role in preserving cultural history. This was deemed relevant in encouraging children to develop confidence in their culture, customs and beliefs thus

transmitting family history through different generations. These approaches were not as dynamic as those in the 21st century as their nature promoted rote learning, which at times did not separate cultural values from learning about key events in the past (Seixas, 1993). Therefore, oral storytelling about the past was didactic and reflected transmissive approaches that might not have built strong dialogical relationships between the storyteller (elder), who was assumed knowledgeable and authoritative, and the listener (children).

At the turn of the colonial period, Uganda embraced formal education in 1877 and 1879 by Anglican and Roman Catholic missionaries respectively (Sebbowa et al., 2014) which ushered in the study of history as an academic discipline, and oral history soon began disappearing (Sekawa, 2001). Formal education in Uganda is structured in a hierarchical manner in a 3-7-4-2-3+ system reflecting the British based system. This implies three years at pre-primary, seven years at primary, four years for secondary- ordinary level (O level); two years for advanced level (A level) and a minimum of three years at university depending on the course undertaken.

Thus, with regard to history, formal teaching in Uganda begins at primary level where children are taught Social Studies under the theme of living together (Muyanda-Mutebi, 1996). At secondary level, history is compulsory at the O level and taken as an optional subject at the A level.

At university, particularly at Makerere University, School of Education, history is taken as a teaching subject where pre-service teachers gain pedagogical-content knowledge involving how to teach knowledge of the past (Bain & Mirel, 2006) to their future students. Although colonial education recorded positive attributes and successes (Sekawa, 2001), challenges persist. For example, there are a number of distorted historical facts about missionaries, dominant tribes and colonial collaborators that appear in textbooks in the 21st century (Sekawa, 2001). Perhaps this distortion was due to ignorance of the intricate nature of some African traditions and culture in which history was anchored, or to a lack of collective interpretation of historic events to obtain multiply perspectives about the key events of the past.

History written about Uganda before and after her independence harbors a Eurocentric colonial mentality (Takako , 2011). This is reflected in the national history curriculum, which is based on British written accounts and focuses on studying the history of Europeans in Uganda. This Eurocentric focus of the history curriculum is also reflected in the way history is taught, embracing largely the same instructional methods used by the missionaries and Europeans during the colonial period (Takako, 2011). These transmissive approaches reflect more than a century-long tradition of teacher-centered methods of instruction (Maloy & LaRoche, 2010), still predominant in History Education today. Such approaches are characterized by the memorization of history facts and dates (Nabushawo, 2013, Kakeeto et al., 2014), limited teacher-student interaction (Sebbowa et al., 2014), focus on syllabus coverage for passing examinations, and Euro-centered interpretation of the past (Fage, 1981). In History Education this „kills“ reflective practice, glorifies cram work and the reproduction of history facts and meanings, thus limiting students“ understanding and ability to think historically.

The memorization of historical concepts is also manifested in the history examinations set at primary and secondary levels by UNEB. Many of the questions only look for factual answers without reflecting a meaningful understanding of historical events that can be applied to solving problems in real life. History textbooks are also oriented towards rote learning with limited student activities and revision questions aligned reproducing set content.

That said, my argument is that involving students and educators in constructing meaning about the past by using multiple resources and perspectives mediated by ETs, which the 21st century students use on a daily basis might potentially enhance dialogue in history pedagogy.

2.3 Teaching and learning history as an academic discipline in Uganda

History is one of the subjects on the Ugandan syllabus and is offered at both O and A levels, resulting in the award of the Uganda Certificate of Education (UCE) and the Uganda Advanced Certificate of Education (UACE) respectively upon external examination. The aim of teaching history is to help advance an understanding of past

historical events so as to explain and manage current events, and therefore be able to shape the future (Ministry of Education and Sports & National Curriculum Development Centre, 2008).

Consequently the rationale of teaching history at O level is:

- To broaden the learners' understanding of the political, social and economic developments of East Africa in particular, and Africa in general.
- To help learners develop the ability to weigh information and make judgments on historical events.
- To help learners develop and practice skills of gathering information and expressing historical ideas in a coherent and logical manner.

(Ministry of Education and Sports & National Curriculum Development Centre, 2008:VI).

The general aims of teaching history at A level are illuminated below:

"To provide the students with a sound knowledge and understanding of history; to encourage historical research and use of a wide variety of sources materials; to help students to develop ability to relate historical events to the present; to encourage students develop systematic appreciation of the major economic and social issues being tackled by the present day governments, to stimulate thought and discussion by use of historical case studies and to further the development of the students' skills in expressing historical ideas in a more coherent and logical manner."(UNEB, 2005)

As can be seen, much emphasis is placed on widening students' understanding of the political, social and economic development of East Africa, and Africa in general. This creates a gap in students' learning, as they need to construct meanings first from local perspectives (part), then East African and then African at large (whole). This approach of learning about the past from the local context builds meaning and value to the students'

local community set into the larger African and global context (Seixas, 1996; Roberts, 2010). From my point of view, guiding students to learn about their own past, particularly the local history of Uganda, would be ideal for them to understand their origins, identify with their country's past, while also establishing the relevance of studying history in school.

The history syllabus at O level covers four African regions (East Africa, West Africa, South Africa and Central Africa) and is examined with four history papers highly constrained by a limited focus on Ugandan history. For example, history paper 1 (the history of East Africa) is taught from senior one to senior three level. Its scope is from c.1000 to independence and is compulsory for all students. Content papers 2, 3 and 4 include the history of West Africa from c.1000 to independence, the history of Central Africa from c.1000 to independence, and the history of South Africa from c.1000 to independence. These are optional or electives, with schools free to choose any paper of their choice. The time allocated to teaching history in secondary school is three periods a week to be covered within 40 minutes per lesson (National Curriculum Development Centre, 2008).

The constraints of time to accomplish the syllabus forces teachers to engage in the dictation of history notes from textbooks to cover all the content within the stipulated period of time, thereby resulting in limited understanding of the subject (Roberts, 2010). More importantly, the history content knowledge and related pedagogical content knowledge aligned to the ways and skills of teaching history content (Shulman, 1986 ; Roberts, 2010; Monte-Sano & Budano, 2013) are so abstract and alien that students feel detached from the subject because it does not identify with or reflect their own past and current needs. This lack of connection between the study of the past and students' needs certainly reduces motivation in learning about the past (Stockdill & Moje, 2013).

As earlier mentioned the challenges in history pedagogy might be attributed to the colonial based history curriculum and related teaching approaches that have not changed much since Uganda's Independence. Reform efforts in the discipline have sought to

change subject content but still place emphasis is on passing external examinations. Consequently, as a strategy to improve the quality of History Education in Uganda, the National Curriculum Development Centre (NCDC) has embarked on reforming the lower secondary school curriculum (Clegg et al., 2007).

2.4 The proposed lower secondary curriculum reforms and its constraints

The curriculum reform process was adopted for both contextual and historical reasons with a major focus on foregrounding an inclusive skilled-based curriculum that enables students to recognize and apply knowledge, skills and competencies to solve contemporary challenges. The curriculum reforms inceptioned in November 2011 envisage an O level shift from the current system where students undertake study in 14 subjects, to a set of generic skills adaptive for the 21st century and acquired through learning areas (Musoke, 2014). The reform process is envisaged to usher in a student-centered social studies syllabus focused on the development of knowledge, skills, values and attributes that students need to participate in a democratic society (Clegg et al., 2007). The syllabus combines elements of separate subjects; geography, history, politics and society, focused on an interrelated understanding of aspects of people, society and environment (CURASSE, 2013). Consequently the social studies learning area inherently hosts four strands: society and leadership, people and their environment, resources and sustainable development, and time and continuity (ibid, 2013:8).

The study of the past is captured by the strand „time and continuity“ that focuses on appreciation of the students“ own heritage, including culture, language and traditions and how these have changed over time (ibid, 2013:8). This proposed strand aims to capture learning outcomes in terms of interpreting the history and development of society based on evidence, obtaining historical thinking skills, collaborative skills, reflective skills and values relevant to the 21st century learner. The approaches (how this knowledge and skills might be transferred in the learning process) are vital to the teaching process. To this end, Seixas (1993) argues that history curricula may not only focus on what history students should know, but also create an awareness of how they think and learn about the past and their own place in time. Therefore, the proposed social studies curriculum reforms

include practical approaches such as fieldwork trips with learners visiting their home areas during weekends and holidays, and also the use of case studies where learners are envisaged to compare their own situation in the Ugandan context to other contextual cases in the world.

However, while the new curriculum reforms might usher in a wave of change in learning about the past, it is constrained by its limited focus on the content knowledge of Uganda's local history, yet it requires students to see themselves and their community represented in the academic version of history. There is need to decolonize the curriculum and make it relevant to indigenous students. While I am aware that sections of Ugandan's past are covered under Social Studies at the primary level. My argument is that the curriculum reforms ought to accommodate and enhance students' knowledge and understanding by offering a wide coverage of Uganda's local history including key events from pre-historic Uganda (before 1894) to colonial Uganda (1894-1962) with a strong emphasis on post-colonial Uganda (1962 to date). For example, coverage of key historical events such as general elections in Uganda since 1961 to the present, or of profound personalities such as Milton Obote 1 (1925-2005) and Idi Amin (1925-2003) who were influential in the Africanisation of Uganda during and after Independence (Karugire, 2010). Students can illuminate the positive achievements and limitations in the roles of such historical figures and draw lessons that influence their decisions in the present. I infer that this process might be enhanced with history teachers and students dialogically interpreting local content knowledge about the past as a means of establishing democratic participation in constructing meaning on Uganda's local history. This is important because both teachers and students might develop an interest in Uganda's past and thus establish the relevance of studying history to solve current problems. Stockdill and Moje (2013) postulate that students often feel disconnected from the content presented by the history syllabus in schools because they neither identify with it nor feel a part of it.

To support my earlier argument of focusing students to study local history that is relevant to solving their present problems, my study implementations considered history topics

(suggested by participants) that align with Uganda's past (see chapters, 6, 7 and 8). Thus students and the educator were engaged in dialogical conversations about the relevance of studying identified topics to their lives in the present mediated by ETs (Wikis). Therefore, drawing lessons from the past helped define the meaning of the present, consequently placing students in historical time (Seixas, 1996).

Following the limited focus on the local history of Uganda in the proposed curriculum reforms, not much is said about the need for the acquisition of digital media skills in the pedagogical process (Clegg et al., 2007). Little or nothing is mentioned about how digital skills can be embraced by teachers to enhance learning about the past, notwithstanding that fact that 21st century students learn differently and perhaps require alternative learning approaches that connect to them in the present (Haydn et al., 2015). As an intervention to this challenge, I suggest a need for systematic guidelines (pedagogical framework) for teachers and educators on how to engage in dialogical conversations between the past and the present mediated by ET (Wikis). In this way, it is more likely that students might become interested in and aligned to reflecting on the past to solve their problems in the present, thus making the study of history relevant to them.

Although some constraints have been identified in the proposed reforms for the lower secondary school curriculum, in particular the social studies learning area, the Makerere University teacher education programme is in the process of reviewing courses with a focus on preparing pre-service teachers to handle the new competence based curriculum. Consequently, in the next section I will discuss the pre-service teacher education context.

2.5 Pre-service Teacher Education at School of Education, Makerere University

The pre-service teacher education programme at School of Education is as old as Makerere University founded by the British Colonial Office in 1922 initially as a college until it achieved full university status in 1970 (Kagoda & Itaaga, 2013). School Of Education is mandated to train and produce lecturers, teachers and educational managers competent to adapt to the present emerging demand for skills, knowledge and practices at different levels: pre-primary, primary, secondary and teacher education (CEES, Strategic

plan, 2011). This move comes in to support Makerere University's paradigm shift from teacher-centered to student-centered pedagogy and utilization of ICT in instruction, learning and learning (Makerere University Educational Technology Strategy, 2010). Hence, the School of Education aims to empower teacher educators to facilitate high quality learning using diverse pedagogical strategies, while integrating ICT innovations in all its teaching courses (CEES Strategic plan, 2011).

This study focuses particularly on teacher education of pre-service teachers (students) enrolled at the School of Education. My choice of context of study was firstly because I teach a course entitled „History Methods“ at the Department of Humanities and Language Education. The history methods course guides pre-service teachers on how to teach history effectively to their future students. Secondly, Makerere University produces the largest number of pre-service teachers for Uganda and the entire East African region (Kagoda & Itaaga, 2013). This implies that the results of this study could have a large multiplier effect not only in Uganda but also the East African region, and could be generalized to similar cases of teacher education contexts elsewhere in Africa and the world at large.

A number of teacher educators have been trained by the Makerere University's e-Learning Unit and the Directorate of ICT support to embrace ICTs in the pedagogical process. A couple of staff members from the School of Education have been awarded Mellon scholarships and have received Post Graduate Diploma Training at the University of Cape Town in integrating ICT in education. This therefore suggests that the trained staff members are more likely to embrace the use of ETs with a potential to improve pedagogy.

2.6. Pre-service teachers

For purposes of this research, the term „pre-service teachers“ will be used synonymously to mean students and participants. The History Methods course is offered during the second semester to pre-service teachers in their second year of study. Those in their third year of study take the course during the first and second semesters. The course challenges students to develop an understanding of and to engage with appropriate teaching

approaches aligned with contemporary issues in the 21st century, while shaping future pedagogies (Sebbowa et al., 2014). It also encourages pre-service teachers to translate their own methods of learning history (i.e. through reading scholarly works, analyzing history sources and group discussions) to apply practically to their future students.

In addition to the methods course, pre-service teachers attend an introductory computer course and a curriculum course in educational technologies during their first and second semesters (ibid, 2014). Although, there is still limited ICT infrastructure at the School of Education, such as a computer laboratory with over 40 functional computers, university-wide wireless connectivity and internet ports in some lecture rooms. Some pre-service teachers have embraced the use of ETs to afford their understanding of the past. They have also created accounts on a Moodle Learning Management System (LMS) branded at Makerere University ELearning Environment (MUELE). Among other uses, MUELE is embedded with a discussion forum tool for creating dialogue between students and educators during the pedagogical process. Pre-service teachers therefore have opportunities to develop an interest in using LMS and other ETs that are enabled with internet connectivity, making them more likely to use social media such as Facebook, Twitter and WhatsApp, for example (Sebbowa et al., 2014:27).

Given such exposure and engagement with ETs, I argue that pre-service teachers have both access and skills to engage in shared conversations of history meanings mediated on a Wiki. They need to develop familiarity with history-specific scholarship on pedagogy (Bain & Mirel, 2006). By examining the possibilities and challenges in teaching and learning about the past, pre-service teachers might be able to engage in ongoing discourses in History Education.

The proceeding sections explore discourses around the concept, „history“, with the related History Education approaches.

2.7 Discourses in the conceptualization of history

History is continuously reconstructed and subjected to interpretation (Monte-Sano, 2011) as shown by careful examination of historical evidence (Voet & Dewver, 2016). Most animated debates over history stem from what history is (Carr, 1961), curriculum content or history content knowledge (Monte-Sano, 2011), learning approaches or pedagogical content knowledge (Monte-Sano & Budano, 2013), and how these relate to learner needs, thus linked to solving problems in the contemporary world (Davies, 2010). It is therefore not surprising that there is still no univocal definition of history as many scholars are still engaging in unending discourses (Carr, 1961) about what history is and how it can be communicated through different generations (Burns, 2014).

History has been viewed in different perspectives depending on the author, context and times. According to Davies (2011), history is viewed as narrow-minded facts about famous dead people using traditionalists' approaches like lecture method and taught from a textbook.

However, Taylor, (2008) argues that history is a progressive, open and endless field of study that should relate to students' needs with a focus on problem-solving activity within classroom contexts. Thomson (1969) Adeyinka, (1991) and Stanford (1994) view history as inquiries into the past based on sources of evidence as the basis for history pedagogy. This view seems to suggest that history teachers and students interpret and assess various forms of evidence, such as multiple texts, artifacts and photographs containing historical information.

Carr (1961) attests to history as an unending conversation between the historian in the present and the facts of the past. Carr further argues that it is a social requirement to interpret the past since it has an explicit influence in our lives. This suggests a continuous movement between the past, present and what the future might be like. Similar sentiments are re-echoed by McCullough (2008) who defined history as „who we are and why we are the way we are.“ In support of this view, Ciydem (2012) sees the concept of history as a sense of reflection of human kind in the past to make sense of today and to direct the future.

Following the above definitions, my own conceptualization of history is that it is an unending dialogical conversation of the past to determine the present, and to predict what the future could be like. Perhaps more importantly, I focus on ongoing discourses of the nature of how history is taught and communicated to students during the pedagogical process.

2.8 Discourses in History Education

History pedagogy in secondary schools (Trskan, 2012) and at the university (Maloy & LaRoche, 2010) has been overtly based on the memorization of names, dates, places and facts (Bain & Mirel, 2006; Savich, 2009; Sebastiañ, Cosme, & Jorge, 2014), where teachers give oral accounts of the main events, notes points on the chalkboard, and draw content primarily from text books geared at passing examinations (Bourdillon, 1994; Hawkey, 2010; Keating & Sheldon, 2011; Trskan, 2012). This predominant use of teacher-centered or behaviorist approaches in the history classroom (Maloy & LaRoche, 2010) is characterized by student belief that the teacher is the source of knowledge (Trskan, 2012). It tests factual recall and essay writing (Keating & Sheldon, 2011; Stockdill & Moje, 2013) and there is limited time to cover the detailed history curriculum (Bain, 2005; Lee, 2005). There is transmissive pedagogy with anti-dialogical sessions (Brown & Drake, 2003; Dull & Murrow, 2008), it is geared at passing examinations (Stearns, 1996; Brown & Drake, 2006; Sebbow et al., 2014) and students find it difficult to relate history lessons to their everyday lives (Seixas, 1996; Vansledright, 2004; Apostouli, 2012; Stockdill & Moje, 2013; Harris & Girard, 2014; Voet & De wever, 2016).

A report on the current state of history teaching in Africa revealed that out of the 44 African countries that participated in research, 34 (77.7%) preferred the use of the lecture method in teaching history, arguing that this approach afforded the full coverage of the detailed history syllabus (Dramani-Issifou, 2010). However, the report did not substantiate the different cases of African countries that participated in this study and thus the results may not be generalizable to countries within similar context settings. That

said, History Education does not adequately serve today's students (Bennmayor, 2008, Haydn, et al, 2015) who appear divorced from having a shared heritage and identity (Mohamud & Whitburn, 2014; Sebbowa, et al., 2014:25), who view students as recipients of un-contextualized knowledge about the past and hence find history useless to their present lives (Savich, 2009; Cochran, 2010).

Thus, the educational objectives for the study of history (Coltham & Fines, 1971) have influenced history teachers' and teacher educators' rethinking of the basis of history teaching (Keating & Sheldon, 2011), with an aim of transforming it into various aspects of learners' attitudes and skills relevant to 21st century pedagogy (Haydn, 2010, Hawkey, 2010; Keating & Sheldon, 2011). Moreover, the goals of History Education have shifted from solely building historical content knowledge to focusing on historical thinking, historical consciousness and small local history (Seixas, 1996; Nokes, 2015), to interest students in learning about the past (Trskan, 2012). Despite the numerous goals and initiatives to link to students' understanding about the past, behaviorist methods continue to dominate history pedagogy. Informed by the DBR approach, this study proposes a systematic set of principles (pedagogical framework) informed by theoretical underpinnings to understand how educators and students dialogically construct historicity mediated by ET hence aligning to the way students learn in the present. This is not to argue, however, that the use of pedagogical frameworks has not been reminiscent in History Education, rather it is to suggest a systematic structure based on DBR research approaches to link theory with practice at teacher education level in Makerere University.

Given the predominant use of behaviorist approaches in History Education varied research has been conducted to advance interventions and solutions to improve the quality of teaching and learning of history. For example, in the United Kingdom, the history curriculum has been continuously reformed to cater for national and learners' contemporary needs (Keating & Sheldon, 2011). Some African countries have since their independence embarked on reforms to decolonize their history curriculum, while others have attempted to renew the history syllabus (Dramani-Issifou, 2010) to cater for constructing meanings about the past. Reviews and piloting of the history syllabi by

governments has been evident in Africa, with Botswana, Swaziland, Lesotho and South Africa providing examples of where this practice has been effected (Sieborger, 2000; Ntabeni, 2012). This should have a direct influence on changing the traditional approaches in the respective countries to adopt new pedagogies that suit the new history curricula.

Research conducted in South Africa and Swaziland reveal, although there was a change in the history curricula revised in 2005 and 2008 respectively, teachers did not abandon their traditional behaviorist methods of teaching (Sieborger, 1993; Kallaway, 2000; Okeke & Dlamini, 2013; Dlamini, 2015). These researchers have since argued for a need to train teachers in learner-centered methods that embrace skills of interpretation (Okeke & Dlamini, 2013), collaboration and thinking historically. Bain and Mirel (2006) suggest that teachers/educators could begin by inquiring whether the courses taught provide pre-service teachers opportunities to engage with various teaching strategies or understand the curriculum.

The nature of how history is taught persistently raises a multitude of questions that will elicit ongoing discourses through different generations of students (Burns, 2014). For example, some history educators argue that students should regularly be engaged in dialogue (Dull & Murrow, 2008, Burns, 2014; Barton, 2015) to enable them collaboratively to answer the how and why questions (Mohamud & Whitburn, 2014) as they manage their own learning about the past. Others postulate that through democratic participation and questioning, students will practice a historical thinking skill, engage in interpretation and reflection of the past that will better prepare them for democratic citizenship (Dull & Murrow, 2008; Wolfe & Alexander; Chapman, 2012; Burns, 2014).

However, Wolfe and Alexander (2008) claim that since change is slow and always linked to patterns of interaction to the teacher and learners' cultural backgrounds, it is difficult to sustain changes from the traditional patterns to dialogical practices. Similarly, Malay and La Roche (2010) and Cochran (2010) found that using student-centered teaching methods presents a great challenge to some teachers. Having experienced mostly teacher-

centered instructional approaches, they begin student teaching with few models on how to teach using less traditional forms of instruction. New teachers tend to teach as they were taught, basing on their lived experiences in their own schooling, or observed in schools where they are teaching (Maloy & LaRoche, 2010: 46). Consequently, Dull and Murrow (2008) propose that both teachers and students need to learn how to think and construct multiple accounts of the past, which could be reflected in the pedagogical process.

Monte-Sano (2011), and Monte-Sano and Budano (2013) argue that attaching relevance to learning about the past involves four components. These include representing history (the ways in which teachers communicate the nature of historical knowledge, structure history as a discipline, and historical thinking), transforming history (how teachers transform historical content into lessons and materials that target the development of students' understanding of history), attending to students' ideas about history (teachers identify and respond to students' thinking about history to build students' incoming ideas), and framing history (teachers identify topics of study and establish how they relate to learners' daily lives). Pedagogical content knowledge of teaching history captures learners' thinking in trying to understand and attach meaning to the past. Perhaps this is best achieved by embracing student-centered methods in a history class (Maloy & LaRoche, 2010), albeit the predominant traditional lecture Methods of learning history (pedagogical content knowledge) have been conceptualized by Wolfe & Alexander (2008); Maloy and La Roche (2010), and Voet and Dewver (2016) as follows.

- Traditional lecture: teacher-dominated, tests recall, drilling and memorizing of historical facts and dates.
- Inquiry-based methods: investigating available information, discovering, questioning, and interpreting the past based on accounts that it changes over time.
- Project method: applying theory (what is studied in the history classroom) into practice through visits to historical sites, museums and archives.
- Resource persons: obtaining information about the past from elders, knowledgeable persons and the community.

- Group discussions: fostering dialogic exchange of ideas with a view to sharing information and solving problems of the present in reflection of the past.
- Technology and research: using primary, secondary and internet sources correctly to analyze historical and contemporary events.
- Drama, role-play and simulations: engagement through historical re-creations, plays and imaginations.

Consequently, embracing learner-centered methods that capture students' present day life in relation to the past is vital in History Education (Dhuwaib, 2013). For example, a small-scale research was carried out among 22 students (aged 15) in a Greek history classroom. The students were asked to engage in a meaning-making process by locating the most historically significant event within the taught period (from 1789 to 1989) and also in the relatively recent past (from 1989 to date). The findings of the study indicated that students chose the recent past (1989 to date) as most historically significant as they related it to their everyday life. They viewed historical significance as a means of facilitating students in the meaning-making process (Apostolidou, 2012).

Similarly, Lee (2002) carried out a study among history teachers' use of computers in supporting the construction of meanings in a history class. Findings from the study revealed that effective use of computers in the classroom enables and builds communities of learners, creates student-centered learning environments, and facilitates a meaning-making process.

While the above studies exhibited the importance of reflecting on students' present lives and engaging with computers to build communities of learners, none of their work demonstrated how students could use the past to solve problems in the present mediated by Wikis. This is not to argue, however, that ETs have not been integrated in history pedagogy, as studies by Haydn (2001), Polman & Westhoff, (2004), Hills and Munro (2005), Haydn and Barton (2007), and Chapman, (2012) have substantiated this. These studies have been conducted in different contexts, including the United Kingdom, Scotland and United States, and none of them engaged with DBR methodological

approaches to propose procedural guidelines for teaching history using Wikis. This certainly creates a niche for the current study to be undertaken.

To this end, I argue for a systematic structure in form of a pedagogical framework or guidelines for teachers, educators and students, which focus on promoting dialogical conversations between the past and the present. I focus on using ETs particularly; Wikis with potentials of enhancing dialogue between educators (past) and students (present) thus are more likely to connect to students' thinking. For the purposes of this study, a pedagogical framework is defined as a set of broad principles informed by theory designed to support knowledge and skills leading to high quality of pedagogy (Alhajri, 2013). There is a shortage of guiding principles (Roberts, 2010) for new and veteran history teachers underpinned by research and theoretical perspective to cultivate dialogical conversations between the past and present. This is not to argue, however, that pedagogical frameworks have not been reminiscent in teaching history, rather it is to propose a systematic structure based on a DBR approach to transfer theoretical insights in supporting dialogical conversations between students and teachers mediated by ETs for History Education practices in the Ugandan context.

Various pedagogical frameworks have been used for history teaching and learning for different purposes. For example, a pedagogical/conceptual framework was proposed to combine knowing and doing in teaching historical contextualization (Havekes, Coppen, & Luttenberg, 2012). Based on the conceptual framework for fostering active historical contextualization, three design principles were proposed: challenge historical knowledge by creating cognitive incongruity, stimulate substantiated considerations and scaffold students' learning (ibid, 2012:83). Other pedagogical guidelines have been proposed for transferring historical literacy into pedagogy in an Australian pre-service teacher education programme (Roberts, 2010), guiding the teaching and interpreting of the African past and the relationship to the continent's present and future (Ndoye, 2010). However, none of these have proposed systematic guidelines for teaching history using Wikis, in a teacher education context in Uganda as a major focus of the study.

That said, I now review previous studies that have used Wikis for educational purposes and engaged with Salmon (2002) online model as a framework for guiding interaction activities on Wikis.

2.9 Wikis in Education

Although ETs encompassing social media tools such as Facebook, Instagram, Twitter, Blogs and Forums offer dynamics to generate new opportunities in learning content in online networks (Konieczny, 2007; Vance, 2011; Mokoena, 2013; McLoughlin & Alam, 2014), Wiki technologies promise to revolutionize collaborative activities in pedagogy (Parker, Chao & Green, 2007; Lundin, 2008; Cole, 2009; Hadjerrouit, 2014) and can be used by peers for assignments in education and beyond (Gokcearslan & Ozcan, 2008). The reason for their growing popularity is that Wikis allow authors to engage in development and review of content more easily than other ETs (Konieczny, 2007). This ease of operation and editing means that teachers and students can collaboratively expand pages for discussions, post assignments yielding to a shared pedagogy (ibid, 2007). Wikis have been used for the collaborative construction of knowledge (Fleta, Sabateur, & Carmen, 2011; Kane, G & Fichman, 2009; Lundin, 2008) achieved through peer reading and editing each other's texts, thereby enhancing learners' assessment capabilities (Caverly & Ward, 2008) Although Wikis have not been widely implemented in education (Vance, 2011; Dewitt, Alias & Siraj, 2014), their potential benefits in teaching and learning have been realized as follows:

- They are useful for online collaborative writing, critical interaction and online authority.
- They support constructivist and social constructivist models of pedagogy with students helping each other in small groups to achieve collective goals.
- They enhance students' participation in online social networking activities outside the formal boundaries of school and university.
- They allow for adding and editing content as a form of negotiation between users over what is acceptable (learning achieved in the process).
- They afford activities that require students to engage in individual research, which can lead to increasingly deeper levels of critical reflection.
- The change tracking mechanism of the Wiki promotes feedback and the development of students' abilities to perform critical evaluations.

- They allow for adding videos and podcasts as learning content accompanied with dialogical engagements between students and teachers, thus making learning fun and exciting.

(Lundin, 2008; Caverly & Ward, 2008; Gokcearslan & Ozcan, 2008; Cole, 2009; Kine & Fichman, 2009; Su & Beaumont, 2010; Hadjerrouit, 2014; Gu, Shao, Guo, & Ping, 2015).

Having presented the benefits of using Wikis in education, I now focus on the potential of using Wikis in discipline-specific aspects. Zorko (2009) investigated the factors that affected the ways students collaborated in English language learning in a Wiki environment. Findings revealed that Wikis promoted a constructivist collaborative approach among teachers but that, more communications were done in physical meetings. This study was relevant to the English language discipline thus creating a niche for the current study, which establishes the dialogical construction of history meanings mediated on a Wiki. Similarly, Wikis were used as a mediating tool to support historical skills in source analysis and presentation of arguments on a history course among distance education tutors at the Open University, UK. The findings revealed that challenges of teaching history at a distance can be addressed through the potentials of Wikis to provide an appropriate active environment that supports a flow of ideas between students and educators (Macdonald & Black, 2010). These studies described and explained how Wikis supported students' historical skills source analysis in a distance education history course, collaborative construction of history knowledge among teachers and students mediated on a the first advanced civilization in mainland Greece and Europe. A consistent gap created is the lack of research- based guiding principles in History Education generally to link theory into practice afforded by Wikis to afford shared constructions of history meanings in teacher education particularly at the Ugandan context.

Kane & Fichman (2009) found that the most effective use of a common Wiki platform in information systems discipline was to provide participants with a forum for dialogue and coordinating. Minocha & Thomas (2007), on the other hand, demonstrated that students' preparation and support in collaborative writing during Wiki activities is clearly critical

to their success. Both teachers and students need substantial technical, administrative and educational support. Similarly, previous studies have revealed that Wikis are not inherently collaborative even though they possess features that support collaborative activities, illuminating challenges such as unfamiliarity and lack of experience with Wikis among students (Fleta, Sabateur, & Carmen, 2011 and Hadjerrouit, 2014), low bandwidth (Heng, & Marimuthu, 2012) and lack of motivation and incentives (Cole, 2009; Judd, Kennedy & Cropper, 2010; Wake & Modla, 2012).

Cole (2009) designed a course that involved a student's publishing course, which included material related to a Wiki. After five weeks (halfway through the teaching term), students had not made any posts. On investigating why this had happened, they cited lack of interest, technical constraints, pressure from other courses and difficulties in using technology. To that end, Cole (2009) recommends the need for continuous training and instructional scaffolding, coupled with a pedagogically-sound methodology that leads to open conversations with multiple and endless realities as an intervention to the highlighted challenges. Pifame and Li (2011) embedded the use of Wikis in a science project in primary education with an aim of fostering collaborative learning. The findings highlighted ways in which the teacher prompted dialogue in learning and proposed solutions for the difficulties. The researchers demonstrated that Wiki affordances of collaboration could only be realized through the design of a pedagogy that takes into account the nature of the collaborative tasks (difficulty of the task) and the pedagogical roles of the students and educators. This implies that for Wikis to be effective in the teaching and learning process, the varying roles of the students and educator as continuous facilitators of learning should not be underestimated.

Salmon's (2002) five-stage model has been proposed as a guiding framework to ensure appropriate educator scaffolds and technical support, while also illustrating students' roles and analyzing data (Su & Beaumont, 2010) on the Wiki. For example, Kovacic, Bubas and Zlatovic (2008), and Wright (2014) investigated the use of Salmon's five-stage model (activities) in writing English as a second language, and designing Community Inquiry course components on Wiki platforms respectively. Findings

revealed that the five-stage model (activities) highlighted systematic educator and learner roles and a solid framework for deeper engagement with English writing content and appropriate designs for the course components. Although the above studies reported on the potential benefits of engaging with Salmon's five-stage model as a strategic approach for structuring content and interaction on the Wikis, none of them aligned Salmon's five-stage model with historical hermeneutics design principles to enhance dialogic and authentic construction of history meanings for preservation and communication through different generations of students.

The particular interest of using Wikis in this study is due to their affordance of fostering and sustaining collaborative versions of historic writings from which historical meanings can be continually edited, iterated and revised as a validation process. This use of a Wiki could be relevant in creating harmony on how pre-service history teachers at Makerere University negotiated and made sense of a particular history artifact at a particular point (Sebbowa et al., 2014).

These sentiments attest to shared dialogue and understanding of history artifacts reflected between teachers/educators as agents of the past and students as representatives of the present. Vance (2011) argues that instead of static web pages, such as blogs with information that the user simply reads, Wikis allow for editing written information, adding pictures, videos or sound that speak to contemporary students. Wikis afford a continuous process of peer interaction and group work viewed as parts (students' ideas), the whole (teachers' expertise) and back to the parts to reach harmony, thus learning history becomes a dialogic process (Parker et al., 2007; Sebbowa, et al., 2014:43).

The following section reviews studies that have engaged with hermeneutics as a philosophy for interpretation of meanings.

2.10 Studies that have engaged with historical hermeneutics

Historical hermeneutics has been used as a qualitative research interpretive method aimed at understanding individual lived experiences, (Pamplin, 2014), interpreting and understanding written and biblical texts (Meek, 2011; Regan, 2012 & Loren, 2014), understanding the process of becoming teacher candidates (Andrew, 2015), and as a transparent method of data analysis among Australian youth (Turner, 2003). Moreover, Smythe, Ironside, Sims, Swenson and Spence, (2008) and Eriksson, Bergbom, & Lindahl, (2011) engaged with the Gadamerian method to understand experiences of women practitioners at childbirth and lived experiences of patients at intensive care units respectively. Although the above studies engaged with historical hermeneutics for educational and medical reasons, none of them sought to use the theory to influence dialogical construction of history meanings mediated on the Wiki, yet it stands out to reason that theory should be reflected in authentic pedagogical practices.

Abadia (2011:372) used the historical hermeneutics to contribute to contemporary debates on the concept of „presentism“ as a judgment of the past to legitimate the present in the history of sciences“ field. The findings revealed that there was significant similarity between Gadamer“s philosophical hermeneutics and the discourse of the historians of science on „presentism.“ On the contrary, however, the current study used the Gadamerian lens to understand the fusion of horizon between the past and the present as dialogical conversations in the History Education discipline. That said, the Gadamerian hermeneutical understanding has also been achieved through social media tools and online learning environments. For example, Watson, Cooke, & Walker, (2015) engaged with the historical hermeneutics to establish an understanding of and build confidence in clinical skills development using Facebook as a mediating tool among first-year student nurses at a university in South-East Queensland, Australia. Findings revealed that Facebook could be used as a mediating tool to reach hermeneutical understanding of design learning strategies and to support students“ confidence and engagement in clinical courses.

Viewed in the same light, De Gagne & Walters, (2010) used the historical hermeneutics as an approach to illuminate the meaning of lived experiences of online educators from different geographic locations at higher education in the United States. Findings suggested that online educators taught how to teach online and provided necessary resources to improve their online teaching skills. While the above studies engaged with Facebook and online contexts to achieve hermeneutical understanding, the use of Wikis to mediate dialogical conversations focused on understanding history meanings has not yet been explored. Consequently, (Niekerk, 2002) made an appraisal of the contribution of Hans Georg Gadamer, focusing on dialogue as a form of obtaining truth, logic and reason by seeking the strong rather than the weak points in an argument. In this study however, the Gadamerian view of dialogue is premised on negotiations, adding and editing history content conversations between educators-students, students-students, afforded by a Wiki with a focus of reaching shared understanding.

2.11 Chapter Summary

This chapter introduced the context of pre-service teacher education in Uganda, illuminating the research problem by describing the pedagogical process of History Education from pre-colonial Uganda to-date. Potential benefits and weaknesses were identified in the proposed lower curriculum reforms, particularly the social studies learning area. Discourses around the concept of history, History Education were presented while highlighting the gaps that prompted the study. Lastly, previous studies that have engaged with Wikis in education and the historical hermeneutics were presented.

The next chapter introduces the philosophical underpinnings through which my study is anchored, drawing on Crotty's (1998) research framework to position the study.

CHAPTER 3: PHILOSOPHICAL UNDERPINNINGS

3.0 Chapter Overview

Research ought to facilitate philosophically-oriented methodological decision-making closely aligned to the use of research paradigms. To aid this process, this chapter adopts a research framework proposed by Crotty (1998), which describes four elements that are key features of any research perspective: epistemology, theoretical perspective, methodology and methods. Thus, the chapter provides the research assumptions that informed the study choice of the research paradigm, theoretical and methodological issues.

3.1 Research paradigms, theoretical and methodological issues

Following Crotty's (1998:4) framework for grounding a research perspective, the following diagram (figure 3.1) illustrates the relationship between elements that form an approach to the research process.

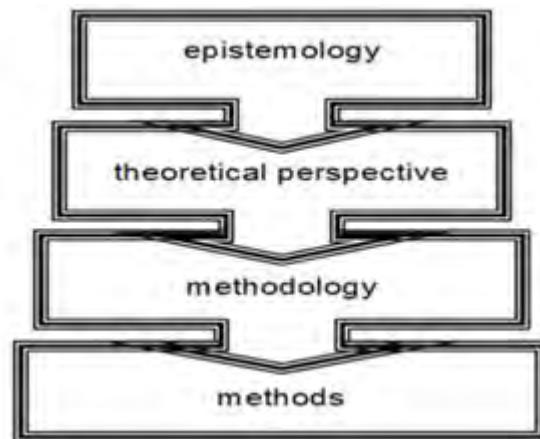


Figure 3. 1: Basic elements of the research process (Source: Crotty, 1998:4)

In figure 3.1, the first element that Crotty presents is epistemology. Epistemology in research is the way of understanding and explaining „how we know what we know“ (Crotty, 1998:8). Epistemological assumptions provide the thinking behind different kinds of knowledge and how they can be applicable in society.

According to Crotty, epistemology shapes and justifies the actions taken by the researcher when constructing meaning about the research context. Crotty postulates that we construct meaning in research through three basic processes: objectivism, constructionism and subjectivism. Objectivism proposes that meaning exists out there in the world and only waits to be discovered. On the contrary, constructionism postulates that we know what we know by constructing it, meaning does not exist somewhere waiting to be discovered; we have to construct it by engaging with reality in the world (Crotty, 1998). It is through researching life experience by which one constructs knowledge. Subjectivism, on the other hand, proposes that the subject or the researcher imposes meaning on the object (Crotty, 1998:9).

The second element presented in figure 3.1 above is theoretical perspective. A theoretical perspective is an approach to interpreting and explaining society while making sense of it (Crotty, 1998). The theoretical perspective requires one to state the assumptions that come into the research context and the philosophical stance lying behind the chosen methodology (ibid, 1998). The interpretivist approach looks for culturally derived and historically situated interpretations of the social life-world (Crotty, 1998: 67). Conceptions of the interpretivist „world view“ are enlisted in the historical hermeneutics theoretical perspective used to understand a fusion of horizon between the past and the present (Crotty, 1998; Gadamer, 2004). In an attempt to describe the way in which such a worldview influences the process of research, Kuhn (1962) introduced the notion of a paradigm. Kuhn used the term to mean a disciplinary matrix, a set of beliefs, values, methods and perceptions shared across a discipline. Moreover, paradigms are relevant in assessing and examining the ability to address research questions (Maxwell, 2005). Paradigms represent research assumptions and methodological choices made and how these are conceptualized. Working from this perspective, Crotty's third element of methodology is presented.

Methodology is the strategy, process or design lying behind the choice and use of particular methods to the desired outcomes (Crotty, 1998: 3). A methodology can also be viewed as the process of conceptualizing the entire research process in consideration of

the methods that can be used (Cresswell, 1998; Punch, 2009). Methodology explains and describes the procedure of research in relation to the choice of research questions, context and participants leading to the research methods.

Methods are the last element highlighted by Crotty (1998), illustrated in figure 3.1 above. Methods are the techniques or procedures used to gather and analyze data related to some research questions (Crotty, 1998: 3). Essentially, research methods help in the process of gathering data and providing answers to the research questions focused on addressing the study problem.

The following section presents how I adopted and engaged with Crotty's framework, as illustrated in figure 3. 2.

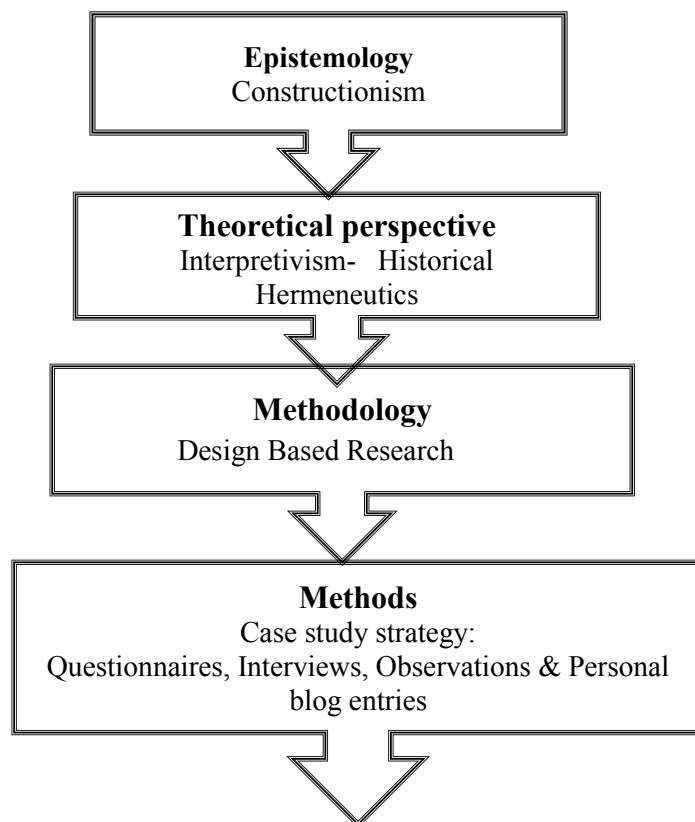


Figure 3.2: Basic elements of the current research process (modified from Crotty, 1998)

3.2 Epistemology: constructionism

As presented in the above section, Crotty argues that we construct meaning about the research world (epistemology) through three basic processes: objectivism, constructionism and subjectivism. This study closely aligns with constructionism, which offers that we know what we know by constructing it; meaning does not exist somewhere waiting to be discovered, we construct it by engaging with reality in the world. Constructionism is an appropriate epistemology to enhance the understanding and authenticity of historicity among pre-service teachers at Makerere University. Constructionism holds that:

„...all knowledge and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context.“

(Crotty, 1998:42).

The sentiment suggests that history meanings are constructed through collaborative interactions between the educator and students. This study seeks to understand how pre-service teachers (contingent upon human practice) construct historicity on the Wiki platform firstly, through my interaction with them, and secondly, through their interactions with each other. In other words, there is a fusion of horizon between the educators and students interactions. In addition, my three research questions underpin the assumption that the setting at Makerere University is essentially a social context facilitating continuous interactive activities and conversations between the educators and PGDE students in 2nd and 3rd year.

Constructionism as social phenomena and categories are not only produced through social interaction, but are in a constant state of being revised (Bryman, 2012). This outlook implies that through collaborations and dialogue between the educator-students, and students-students (social interaction) interpretation of historic meanings may be continuously edited and updated on a Wiki. Hence historicity is not presented as an

external reality, but as emergent realities that are in a continuous state of being constructed and reconstructed to align with the 21st century pedagogy (Crotty, 1998).

Constructionism epistemological assumption asserts that students do not obtain ideas from the external world, but must construct their concepts through active and personal experimentation (Piaget, 1970; Mayes & Freitas, 2004). This closely aligns with the study focus of engaging in active and dialogical construction of historicity among pre-service teachers experimented and observed on the Wiki. In the context of this research, constructionism is a reaction to the persistent didactic mode of teaching with no linkage to theoretical inclinations, reminiscent in history teaching in the Ugandan context (Mayes & de Freitas, 2004; Sebbowa et al., 2014).

Constructionism is sometimes criticized for lacking a clear structured approach to the process of interaction. For example, with whom and what do we interact? This makes predictability and generalizability difficult because the accumulated knowledge is usually relative to particular social contexts and the people studying them (Crotty, 1998; Mayes & de Freitas, 2004). While it is true that varying interpretations may emerge with different participants and the general research context, I argue that pre-service teachers' understandings of historicity are not fixed concepts that wait to be discovered. They are interpreted, developed over time and are shaped by their preconceptions and beliefs, and so the collaborations between them and the social context in dialogic conversations and interpretations can give insight into their understanding of historicity. Hence constructionism epistemology provides the baseline from which I scaffold the theoretical framework. In the following sections, I review the case for adopting an interpretative theoretical perspective informed by hermeneutics, particularly the historical hermeneutics theory.

3.4 Theoretical perspective: interpretivism

Theoretical perspective requires the researcher to state the assumptions he or she brings into the research context that influences the methodology of the study (Crotty, 1998). Constructionism claims that meanings are constructed but not discovered by human beings, as they engage with the world they are interpreting (Ibid, 1998). This implies that

constructionism epistemology mutually supports the theoretical perspective of interpretivism adopted in the current study. Interpretivism as a theoretical perspective holds the assumption that subjective world of human experience begins with individuals and sets out to understand the world around them (Creswell, 1998; Cohen, Manion, & Morrison, 2007). Interpretivism influences and applies to my study assumption that interpretation and understanding of historicity through social interactions hosted on a Wiki has potential for improving pedagogy. Interpretivism theoretical perspectives represent research assumptions such as, evidence always being social; multiple realities being socially constructed and influenced by personal histories, culture, time and context (Cresswell, 1998; Cohen et al., 2007; Bryman 2012). In the context of this research, these traits are reflected in the shared construction and negotiation of historicity among pre-service teachers from different cultural settings based on emerging evidence on the Wiki (see, chapter 7).

Another interpretive lens is hermeneutics (Crotty, 1998). Hermeneutics attempts to bring interpretation and understanding to texts, human practices, events and situations. From this point of view, I engaged with ongoing interpretations of historicity as a fusion of horizon between the past and present hosted on the Wiki influenced by the historical hermeneutics theory.

3.5 Historical hermeneutics theory

Hermeneutics originated from the Greeks in relation to the interpretation of biblical Scriptures (Crotty, 1998). The word hermeneutics is derived from the Greek word *hermeneuein*, which means „to understand“ or „to interpret“ (Porter& Robinson, 2011:2). This suggests that, hermeneutics deals with understanding and interpreting human thoughts and actions in terms of texts. For the purposes of this study, texts include historical artifacts that represent history meanings (Sebbowa et al., 2014). Hermeneutical understanding is viewed through three different perspectives: religious hermeneutics, legal hermeneutics and historical/philosophical hermeneutics (Crotty, 1998; Gadamer, 2004; Turner, 2003). Religious hermeneutics is a disciplined attempt to understand biblical texts by continuously relating parts of the scripture to the whole text, while legal

hermeneutics is the exploration of interpretive reality in conceptual formulations used in making any legal argument or rendering any legal judgment (Crotty, 1998:91). On the other hand, historical hermeneutics, or philosophical hermeneutics, is a process of understanding attained through the mediation between the past and the present (Crotty, 1998:101). My study closely aligns with historical hermeneutics, which aims to understand how human actions (between students, peers and educators) share interpretations of history meanings when mediated on a Wiki. Following the Gadamerian language, this description is guided by a fusion of horizon between the past and the present. Hence, a fusion of horizon is significant because the historical life of a tradition (past events) depends constantly on how meaning is assimilated and interpreted (Gadamer, 1989: 387). This seemingly suggests that, dialogical conversations between educators and students focus constantly on revising and attaching meaning to the past through the lens of the present mediated by Wikis. For example, to re-define the study problem, there is no fusion of horizons between what is taught about the past and the students' present. This stems from the predominant behaviorist approaches reminiscent in history classrooms with limited or minimal active participation in attaching meaning to the past (see chapter 1, section 1.1).

Given the study problem, my argument for embracing historical hermeneutics theory espouses a continuous process of dialogical conversation or open-ended questioning and answering between past and present, without aiming at a final or complete interpretation (Porter & Robinson, 2011). According to Gadamer, genuine understanding emerges when we begin to see what is questionable in new ways and open ourselves to a dialogue with the other (Porter & Robinson, 2011). To this end, placing emphasis on dialogue and openness to the influences of our history, culture and tradition, is vital in achieving authentic understanding about the past (Gadamer, 2004; Abadia, 2011; Porter & Robinson, 2011).

That said, in the following sections, descriptions of the key constructs highlighted by historical hermeneutics are provided. These were relevant in providing the language to

answer the study problem; historicity-prejudices and biases (P&B), dialogue, fusion of horizon and authenticity.

3.5.1 Historicity

Historicity viewed through the Gadamerian's lens focuses the world on awareness of effective historical consciousness and tradition: „our being emerges through the past“ (Gadamer, 1975; Abadia, 2011; Gander, 2015). Gadamer believed one could not run away nor purge one's history, and that this also influenced the way one understood - „historically effective consciousness“ (Gadamer, 2004). Aligned to historical hermeneutics, I focus on historicity as a key construct in affording understanding and interpretations of history meanings constructed on the Wiki platform, as is indicated in my research question 1. As already mentioned above, I conceptualize historicity as the true understanding of the past (tradition), achieved through dialogical interpretations to make sense of the present with an anticipated future (Gadamer, 1975; Gjesdal, 2015). Historicity constantly reminds us about the importance of our traditions in trying to make sense of the present, thereby remembering the injustices of our past and trying to fix them as we move into the future (Gadamer, 1975).

„We are born with a past even before we begin to know we exist and have the ability to think and wonder, adapting to the world as it is“ (Regan, 2012: 298). From this point of view, German tradition perceives *überlieferung* as that which has been transferred to us, but which nevertheless has to be made alive and meaningful today through interpretation (Cubukcu, 2012). For example, students were required to construct their family histories by sharing text, videos and pictures about their families (see, chapter 7). Hence, by actively participating, retrieving their cultures and sharing with others, students were able to interpret, appreciate, and identify with the past while aligning to its relevance in the present. The position I develop in this study is that, historical hermeneutics acknowledges that understanding is shaped by past reflected in the students' experiences of being in the present world. This was evidenced when the educator and students collaboratively attached meaning to images, videos, and texts as representations of the past mediated on the Wiki (see, chapter 7). Historical hermeneutics places emphasis on how our cultures,

traditions, imaginations and language influence the ways in which we think, understand and experience the world to make sense of the present (Porter & Robinson, 2011). Every sense of the present is shaped by the past or tradition (Gadamer, 1975); if we did not have the past there would be nothing to determine the present and influence the future. This is suggested in Gadamer's sentiments below;

„Long before we understand ourselves through the process of self-examination, we understand ourselves in a self-evident way in family, society and the state in which we live.“ (Gadamer, 1975:276)

It can be inferred from Gadamer's sentiment, that sections of 21st century students find studying history irrelevant, mainly because teachers and educators do not attach relevancy of teaching history content their lives. For example, following the ordinary level history curriculum, students ought to be told why they study *Ethnicity in Uganda*. This is relevant in enabling students appreciate and respect the differences in their cultures, which might lead to unity and peaceful co-existence amongst themselves. To this end, Gadamer postulates that, all successful efforts to enliven a history (tradition) require changing it to make it relevant to the current context (Gadamer, 2004).

Our personal histories are important influences in shaping our interests, beliefs, goals, desires and our thinking (Gadamer, 2004). A key aspect to recognize is that although some young people do not find history lessons and texts interesting, many are interested in cultural and historical issues related to their contemporary lives (Stockdill & Moje, 2013). Historical hermeneutics agitates for awareness of our P&B shaped by our context, generation, society and culture, because they are in most cases hidden yet form our interpretation. History is by nature a subjective discipline since it is influenced by the historian's nationality, religion, political beliefs and times in which he lives (Adeyinka, 1991; Savich, 2009 & Apostouli, 2012). This therefore implies that often the sense-making process during history pedagogy is subjective and cannot do away with P&B among students and educators. Thus, most of the history texts books are subjective and document the author's mind at a certain period of time. This suggests that, teachers and students

ought to interpret history texts exhibiting an awareness of the author's interests, context, background, and times in which the document was written. Gadamer conceptualizes prejudices as a judgment that is rendered before all elements that determine a situation have been finally examined (Gadamer, 1960:271). However, he quickly distinguishes between two relevant kinds of prejudice. The first ones are personal prejudices, which are usually recognized by the interpreter and others, and can easily be dealt with and revised, while the second ones are hidden prejudices that are affected in us through history and whose origin is no longer directly accessible (Abadia, 2011; Gander, 2015).

Moreover, Gadamer asserts that the prejudice of the individual, far more than his judgments constitutes the historical reality of his being. He contends that prejudices are what make interpretation and/or understanding possible:

„When interpreting texts the most important thing is to be aware of one's own biases /prejudices ... assert its own truth against one's own fore meanings“ (Gadamer, 1960:269).

Correspondingly, Meek (2011) argues that, constantly questioning our beliefs and understanding is ideal for eliminating such prejudices. In the context of this research, the attitudes and beliefs that students hold towards History Education are a form of prejudice (see, chapter 7, table 7.20). From my point of view, such students' P&B might be worked out through shared conversations and negotiations about historicity mediated by the Wiki to yield into collaborative P&Bs thus ensuring authenticity.

3.5.2 Authenticity

Historical hermeneutics views authenticity as an identification of true meaning from the past through exhibiting awareness of the influences of one's socio-historical, cultural and contextual conditions (Porter & Robinson, 2011). Historical hermeneutics emphasizes the process of clarifying what something means by looking at multiple lenses of interpretations from evidence (Gadamer, 1975). In the Gadamerian perspective, subjective and objective truth represent the extremes of understanding, both of which are

inaccessible (Leiviskä, 2015). Gadamer argues that there is no interpretation that does not bring into play the interpreter's own prejudices, and stresses the need for self-understanding, and awareness of one's bias, to obtain authentic understanding (Abadía, 2011). This rejection of a belief in subjective or objective truth views historical interpretation and understanding as endless. That said, I strongly agree with Gadamer's views, given that, history has no one right or wrong answer but is continuously subject to interpretation based on the interpreter, the context, the time, and the events of the time therein.

From this point of view, authenticity is achieved through openness to multiplicity of views as evidence from which a collective, informed conclusion can be drawn as a fusion of horizons between the past and present. Hence, I engaged students in collective construction of history meanings while seeking continuous validations through the various cycles, testing, and iterations (validating history meanings) on the Wiki platform (see chapters 5, 6 and 7). The argument developed in this study is that, authenticity of history meanings is achieved through reading, listening to multiple views, sources as evidence, contextualizing and analyzing concepts (see chapter 7, section 7.17).

3.5.3 Fusion of horizons - hermeneutic cycle

The fusion of horizons is the means of regaining the concepts of the past in reflection of present understandings (Gadamer, 1989; Abadia, 2011). Fusion of horizon is also viewed as a mediation and continuity between the past and the present (Abadia, 2011). Understanding history is not static and fixed, and it is not considered as an act of subjectivity but as a joining in with an event of tradition, where past and present are constantly mediated (Gadamer, 1985: 175). This suggests that advancing into the future to remedy the deficiencies of the present necessitates reflecting on the past.

Influenced by the historical hermeneutics views, I argue that understanding in History Education closely aligns with the fusion between the past and the present horizons to determine the future. The present cannot be formed without the past, and past and present cannot exist without each other (Risser, 2015). In the fusion of horizons, the first pole is

the past and the second pole is the present, with the highest type of hermeneutic experience being openness to tradition characteristic of historically effected consciousness (Crotty, 1989: 101). The fusion of horizon also develops on its own as ongoing conversations between the past, present and anticipated future (Gadamer, 2004; Risser, 2015). Therefore I infer that, although bridging the gap between the past and the present by drawing on successful stories and failures is desirable, the lack of pedagogical guidelines make its integration into teaching difficult.

In this case, understanding is obtained through a fusion of horizon between the present (whole) and the past (part). Gadamer agitates for the hermeneutic cycle as a movement of understanding constantly from the whole to part and back to the whole. This argument is reflected in the quotation below:

„The movement of understanding is constantly from the whole, the part and back to the whole... The harmony of all the details with the whole is the criterion of correct understanding. The failure to achieve this harmony means that understanding has failed.“(Gadamer, 1960:291)

The hermeneutic cycle advocates that as we move forward, we must move from the present while reflecting back on the past. This suggests that, understanding is historical, we cannot understand the present without understanding the past. I have argued that, to obtain historical understanding, students ought to reflect on different accounts of the past, contextualize and analyze them to come up with meaningful conclusions. This infers that we constantly break our understanding and compare it to another view, past experiences, new experiences and then put it back together to produce a new understanding. In the context of this research, the fusion of horizon is viewed as the dialogical conversation between the part (individual interpretation) and the whole (history meanings) mediated by Wikis. Hence, understanding is constantly in the process of formation and being bridged, shaped by our past and our awareness of the present (Gadamer, 2004, Abadia, 2011).

3.5.4 Dialogue

Historical hermeneutics conceptualizes dialogue as openness to the otherness in the form of questions and answers and listening to something else more than ourselves (Gadamer, 2004; Risser, 2015). This suggests that dialogue might be in form of history questions and answers to explore the unknown, thus aligning the teacher to the students' thinking. Historical hermeneutics focuses on horizons of understanding through open-ended questioning and answering between the past and the present partners, rather than merely transmission to passive audiences (Porter & Robinson, 2011; Sebbowa, et al., 2014). Moreover, the historical hermeneutics philosophy agitates for movement beyond our individual isolations by asking questions to break through closed opinions, preconceptions and the unknown (Risser, 2015). The key concept of dialogue through openness to meaning is translated from *bildung* in German, which means keeping one's self-open to what is the other, and detaching one's self from one's immediate desires and purposes (Turner, 2003; Risser 2015). In *bildung*, one leaves the all too familiar and learns to allow for what is different from one's self, and that means not only to tolerate it but to live in it (Turner, 2003: 6). Gadamer argues that the achievement of this openness is precisely what is enacted through dialogue of question and answer, as the art of questioning is the art of thinking that takes place in dialogue (Risser, 2015: 337).

Consistent with the Gadamerian views expressed above, the educator and students engaged in shared dialogical conversations of history meanings mediated on the Wiki. The significance of this process, if taken as a snapshot of time, will help in understanding how educators at a particular time/context make sense of a particular historical understanding. Interpretations in History Education are continuous and dynamic (and in most cases change over time). For example, 21st century students may view and make an interpretation of a history artifact by using ETs which may have been different from the way students made interpretations of history in the 19th century. This view closely aligns with Gadamer who suggests it is important for us to recognize that the extent of our understanding may change over a period of time, referred to as the new experience of history whenever the past resounds in a new voice (Gadamer, 2004). Historical

hermeneutics alludes to understanding as a unity of shared dialogue by listening to the other's voice. This is reflected in his statement:

„If there is dialogue, the relationship must be reciprocal and each must be prepared to listen to what the other has to say.“ (Gadamer, 1989: 205).

The above sentiments imply that students and educators should be willing to engage in dialogical conversations termed in German as *gesprach* (Risser, 2015:337) to obtain collaborative history interpretation and each should be willing to listen to another. The hermeneutic goal is to ask a question that is as open as possible, confront popular opinions that are often arrogant and closed to the possibility of being wrong, and to put aside and suspend our own opinions (Gadamer, 2004). This can be achieved through question and answer sessions, discussions between educators and students and fellow students, to reach a sense-making process of understanding. However, historical hermeneutics warns that a person who wants to understand must question what lies behind what is said. (Gadamer, 2004: 363).

However, Gadamer's philosophical position has been criticized by enlightenment-oriented modernist Jürgen Habermas (Leiviskä, 2015), and Jacques Derrida and Emilio Betti for being a dangerous relativist failing to provide an objective foundation for understanding and endorsing the continuity of meaning (Porter & Robinson, 2011). For example, Derrida criticized Gadamer for resting on the centrality of understanding and the possibility of agreement, while not recognizing the radical difference in understanding (Ibid, 2011). Habermas, on the other hand, pointed out that the pre-reflective conditions that Gadamer draws out in terms of tradition, history and prejudice cannot be critically evaluated (Leiviskä, 2015). To this end, my personal philosophy aligns with the historical hermeneutics that acknowledges ongoing discourses and multiple interpretations of history meanings from difference sources of historical evidence (See chapter 2 sections 2.7 and 2.8). This view emphasizes that there is no subjective or objective understanding (Gadamer, 2004) but rather openness to dialogical conversations between the past and the

present, from which a multiplicity of perspectives that are continuous occur. This therefore suggests that, understanding is an endless discourse between the past and the present that might be mediated by ETs. Closely linked to this philosophy, the DBR methodology employed in this study agitates for corroborations with multiple sources, experts and novices, as a means of providing professional scrutiny and critique by other people aimed at obtaining true meaning (Maro, 2013). In support of the DBR notion of shared professional scrutiny, Gadamer acknowledges that authenticity is achieved through sharing ideas with others, and through awareness of prejudices inherited from the past to reach understanding (Gadamer, 1975; 1989).

3.6 Chapter Summary

In this chapter, I have highlighted my epistemology as constructionism, where the construction of historicity is premised within the interpretivism lens. I have discussed the key historical hermeneutics constructs employed in this research. The final part of the chapter presents critiques of Gadamer's philosophy.

The following chapter introduces the DBR research methodology.

CHAPTER 4: DESIGN BASED RESEARCH METHODOLOGY

4.0 Chapter Overview

As a continuation of the basic elements of the research process introduced in chapter 3, this chapter presents the methodology and the methods used in conducting my research. An overview of the DBR is presented as the methodology, together with the characteristics and justifications for engaging with the DBR. The methods within the case study strategy together with data collection methods are illuminated. The chapter concludes by providing a demonstration of the hermeneutic analysis cycle driven steps with related examples of how these were implemented within the research and the ethical considerations undertaken.

4.1 Overview of research methodology

This study conforms to the research methodology influenced by the DBR approach, (Brown, 1992; Barab & Squire, 2004; McKenney & Reeves, 2012) particularly Educational Design Research focused on developing research-based solutions informed by theory to solve complex problems in educational practice (Akker, Bannan, Kelly, Nieveen & Plomp, 2013). Therefore DBR has potential for linking theoretical to practical contributions in educational research. The field of educational technology lends itself to the use of this method (Reeves, 2006) and examines how learning theory informs the development of an educational intervention over time and accumulates evidence that the intervention leads to improved learning (McKenney & Reeves, 2012; Akker, Bannan, Kelly, Nieveen & Plomp, 2013). The coining of the term “design research” in a methodological context is credited to Ann Brown and Allan Collins in 1992 (Collins, Joseph, & Bielaczyc, 2004:15). DBR, as conceived by Ann Brown (1992), was introduced with the expectation that researchers would systemically adjust various aspects of the designed context, so that each adjustment served as a type of experimentation that allowed for testing and generation of theory in naturalistic contexts (Barab & Squire, 2004:3). These sentiments seem to align with other research approaches such as action research, which share similar traits to DBR. Action Research is a paradigm of inquiry in which researchers examine their own educational practice systematically by

applying varied approaches to research (Ferrance, 2000). Action Research resembles DBR in that both identify authentic challenges and are accompanied by subsequent actions to improve status quo, while practitioners like teachers are highly engaged a cyclic research process to bridge the gap between theory and practice in educational contexts (Reeves, Herrington,& Oliver, 2005; Bakker & Van Eerde, 2014). However, the key difference is that the outcome of Action Research are not design principles like DBR (Herrington, Herrington & Mantei, 2009).

Consequently, literature suggests that studies involving innovations in the classrooms require a methodological approach that engages teachers as co-investigators and forges strong teacher-researcher collaborations (Barab & Squire, 2004: Herrington, 2006: McKenney & Reeves, 2012). It is the procedural process and emphasis on designing a collaborative meaning-making environment to address the study problem and use of varied qualitative methods to inform research findings that influenced my choice of design in this study and subsequent alignment to DBR methodology.

4.2 Design Based Research methodology

DBR has been referred to by using different terminologies and variations that include; development research (Kelly, 2003), design experiment (Brown, 1992: 141), educational design research (Akker et al ., 2013) and formative research (Newman, 1990). Consistently scholars have defined and engaged with the concept of DBR focused on specific disciplines and contexts. For example, DBR has been described as a series of approaches with the intent of producing new theories, artifacts and practices that account for and potentially impact learning and teaching in naturalistic settings (Barab & Squire 2004:2). While Akker et al., (2013: 14) defined DBR as a systematic analysis, design and evaluation of educational interventions with the dual aim of generating research-based solutions for complex problems in educational practice, and advancing knowledge about the characteristics of these interventions and the processes of designing and developing them. Similarly, McKenney and Reeves (2012:7) position DBR as an educational design research with a genre of research in which the iterative development of solutions to practical and complex problems also provides the context for empirical

investigation, which yields theoretical understanding that can inform the work of others. As already shown in the preceding sections, this study closely aligns with the „educational perspective“ of DBR because of its reference to the pedagogical aspect that attempts to distinguish this research approach from other disciplines like human–computer interface design (Reeves, McKenney & Herrington, 2011). Given that DBR conceptualizations have evolved for over ten years and are still evolving (Anderson & Shattuck, 2012), a more explicit understanding of DBR can be reached through its characteristics.

4.3 Characteristics of Design Based Research

DBR bears characteristics that afford its major goal of designing educational interventions informed by theory to solve a pedagogical problem through a series of iterations aimed at improving learning. These are summarized in table 4.1 below

Characteristic	Summarized explanation
Theoretical orientations and practice aligned	Involves a practical process informed by theory applied to authentic learning environment
Interventionist	This focuses on designing an intervention in an authentic setting
Collaborative, iterative, and involving practitioners	The research and the learning solution created is based on a dynamic collaboration with the practitioners such as key stakeholders, researchers, and educators and uses lessons learned to make revisions and iterations.
Integrative/ use of mixed methods	Employs varied strategies in acquiring information at different points in the design development and implementation stages, which facilitates a much richer understanding of the created learning solution
Contextual	All steps of the research, as well as the design, development and implementation stages are documented and reflect what has been learned in contexts
Evolution of design principles	Developing design outcomes (guidelines/principles) that have been successful or not, reflect how the implementation has been improved and what kind of changes have been made

Table 4. 1: Characteristics of DBR (Source: Wang and Hannafin, 2005).

Given that my study views DBR through the pedagogical lens of improving learning, I further provide clarification on its particular educational traits. Herrington, (2010); McKenney and Reeves (2012), and Baker and Eerde (2014) cite DBR as an interwoven process hosting the following pedagogical characteristics:

- DBR involves the design of learning materials as a crucial aspect in research.
- Design of the educational environment is interwoven with testing and engaging with theory to inform the educational intervention.
- DBR solutions with learning outcomes are normally reflected in educational products and processes.
- DBR involves collaborations among researchers and practitioners to test innovative learning designs as well as to reveal design principles or guidelines.
- DBR integrates various research methods at the design, implementation and development stages to cater for the credibility gap and also to enhance a broader understanding of the learning solution.

4.4 Justifications for using Design Based Research as a methodology

There is an outstanding criticism that educational research does not align theory with practice in solving authentic challenges in the pedagogical environment, as cited in literature (Kelly, 2003; Barab & Squire 2004; Mor, 2010; Mc Kenney & Herrington, 2011; Akker et al., 2013). From this point of view, my argument for engaging with DBR as a methodology arose from my lived experience, personal motivation (see chapter 1, section 13) and need for an educational intervention that would work in an authentic learning environment to address contemporary learners' needs, with the sole aim of improving learning. Thus, DBR methodology is a viable approach in designing interventions to solve real problems in students' everyday life and advancing theoretical understanding as well. Consistently the Design Based Research Collective (2003) and Akker, et al., (2013) argue that educational research is often divorced from real life practices thus creating a gap for new research approaches that are applicable to addressing present day challenges and thus leading to the creation of usable knowledge. Hence, DBR has potential to help in the development of educational interventions that offer opportunities for learning during the research process. Unlike other forms of

educational methodologies, DBR provides an alignment between research and its relevance to educational practice through working collaboratively with researchers, practitioners and learners to solve real life educational challenges. This was particularly relevant in this research as practitioners that involved; history teachers, an educator and the National Curriculum Development Centre expert, collaboratively explored the nature of an educational problem in History Education, given their lived experiences and iteratively tested and refined both their understanding of the problem and the proposed solutions (see table 4.2).

DBR places emphasis on adapting a design to its local context, and with success, such an innovation can be applied to similar authentic settings (Herrington, 2010). Given that DBR is typically context bound, a Wiki intervention applicable to the Ugandan context was designed, tested and refined as an intervention of shared history understandings at the Makerere University, School Of Education context at that time. In agreement with this view, Abdallah (2013) acknowledges that pre-service teacher education contexts, where prospective teachers continuously develop their teaching and learning skills, are ideal for conducting DBR researches. Furthermore, since DBR was originally used for designing models to address emerging technological innovations (ibid, 2013), the Wiki intervention provides an appropriate example of such innovations. That said, the proceeding section presents the four phases of DBR.

4.5 The four phases of Design Based Research

DBR consists of four phases that ensure a systematic research process, with each phase informing the other through a cyclic and iterative process of refinement of problems, solutions, methods and design principles (Reeves, 2006).

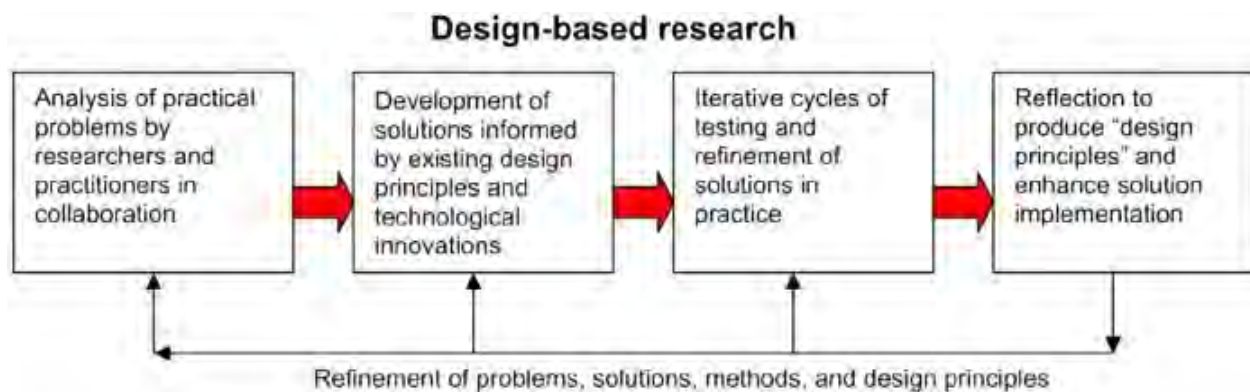


Figure 4. 1: Four phases of DBR: (Source: Reeves, 2006: 59)

Following figure 4.1, the first phase consists of the identification of educational challenges through researchers and practitioners in collaboration (ibid, 2006). The educational problem might be a real life educational problem facing students obtained through consultations and explorations with practitioners in collaboration with researchers (McKenney & Reeves, 2012). Literature reviews are relevant at this phase to refer to the work that has already been done in the area, with a focus on how similar problems might have been addressed (Herrington, 2010). The second phase encompasses the development of solutions informed by existing design principles and technological solutions (Reeves, 2006). At this phase, a solution to the problem is proposed that can be implemented in the classroom or educational setting (Mc Kenney & Reeves, 2012). A theory-based solution is sought through exploring literature and from existing design principles that might have addressed a similar problem (Herrington & Reeves, 2011). The proposed learning solution may be mediated on a technology-based environment and should be tested to establish how it works in real life practice. The third phase involves iterative cycles of testing and refinement of solutions in practice (Reeves, 2006). At phase three, the problem is redefined, methods, theory and design principles are tested and modified iteratively across time periods (ibid, 2006). Consequently, what worked and what did not work at each phase needs to be documented as this helps to establish a more complete picture of the relationship between theory and context (Design Based Research Collective, 2003). This assessment of the successes and failures aims to improve and refine the materials and the pedagogical process. The fourth phase consists

of reflection to produce design principles and enhance solution implementation (Reeves, 2006). This final phase is the production of design principles or guidelines that can inform future developments and implementation decisions (Herrington & Reeves, 2011). Hence, this phase involves the reflection and refinement of the design principles; these are analyzed and revised to reflect the findings (Herrington, n.d). Consequently, the outcome of DBR may be a practical artifact such as a software package, website, mobile based application, a curriculum package, a pedagogical framework, a lesson approach and plan, or a professional development programme (ibid, n.d).

Having described the four phases of DBR as advanced by Reeves (2006), the next section shows how the DBR phases were applied in the entire thesis.

4.6 Application of Design Based Research phases through the entire research process

4.6.1 Design Based Research phase 1: Identification of the problem by researchers and practitioners in collaboration

As a guide in executing the DBR phase 1, the steps posited by Herrington, Reeves and Oliver, (2010) and Vesper and Herrington, (2011: 595) were employed. These are:

- Identification and exploration of the problem
- Consultations with researchers and practitioners in collaboration
- An initial literature review
- The creation of research questions

4.6.1.1 Identification and exploration of the problem

Identification and exploration of a significant pedagogical challenge is the initial step in DBR (McKenney, Reeves & Oliver, 2007). Therefore a thorough understanding of the pedagogical problem is significant before planning a solution to solve such a problem. As a first step of analysis and exploration of the educational problem (McKenney & Reeves, 2012), I presented the background to the study problem and shared my personal motivation, highlighting my lived experience as a student, secondary history teacher and

as a history teacher educator (see chapter 1, sections 1.1 & 1.2). Consequently, a detailed contextual analysis of the problem is required, highlighting the current status of history teaching and learning in Uganda, by locating it from a transition of behaviorist approaches of transmitting knowledge about the past through pre-colonial times on present educational practices in Uganda (see chapter 2, sections 2.2 and 2.3). Herrington and Reeves (2011) argue that the nature of the pedagogical challenge is explored at length not focusing on the research purposes but on stakeholders and people who relate frequently to the problem in their everyday life experiences, and who might be thinking about possible solutions. Thus the next section presents consultations with researchers and practitioners to clarify the problem.

4.6.1.2 Consultations with researchers and practitioners in collaboration

Given that the highlighted problem in History Education might be better understood by collaborating and consulting with researchers and practitioners who deal with the problem on a day-to-day basis (Herrington & Reeves, 2011), I held informal discussions with practitioners to explore the intensity of the problem in more detail while also considering the potential learning solutions to address the problem (Vesper & Herrington, 2011). Thus, informal interviews and consultations were held with two secondary school history teachers, one history teacher educator (researcher) from Makerere University and one history expert from NCDC as practitioners. These consultations were important because involving teachers and other stakeholders in exploring the nature of the problem, offers practice-based advice (Herrington & Reeves, 2011) that increases chances of providing a potential solution to the problem. The discussions focused on sharing views on teacher-dominated approaches reminiscent in history pedagogy, while also exchanging ideas and expectations on what the solution might be like. Several ideas and strategies were suggested and noted. Some of the sentiments captured during practitioners' informal interviews are reflected in the statements below (see Appendix A).

„I teach my students the way I was taught because I passed. I think there is a reason why using teacher-dominated approaches in teaching history today should

remain; it gives teachers the authority in the class and saves the time of responding to students' questions which are irrelevant in most cases, students reproduce what I teach them. However with this approach, students become passive and bored during history lessons."(A1).

While another retorted that:

„I cannot comment about teacher's authority because my case is different. My school encourages us to use the available computers to enhance learning in class. I personally guide my students to search the internet for images and written information about the past."(A2).

This corroborates with sentiments raised from one history teacher educator who said that:

„I personally lecture to my students because they are mature and can research for themselves to beef up their understanding. However, results from course work assessments indicate that most students reproduce my notes and make thin interpretations of the past."(A3).

These qualitative findings were further collaborated by a significant response from an expert from NCDC, who revealed that:

„The current history syllabus in Uganda and related teaching approaches are examination oriented and do not align to the needs of today's learners. This therefore creates learners who cannot solve their current problems in reflection of what happened in the past. Plans are underway to roll out the new lower secondary school social studies curriculum"(A4).

Consequently, the sentiments highlighted above are reflected and analyzed in terms of themes arising, and examples in practitioners' words and suggested solutions are reflected in table 4.2.

Themes arising	Examples in practitioners' words	Suggestions on how to improve the situation
Teacher-dominated approaches (dictating notes)	<p>I teach way I was taught because I passed.</p> <p>Gives teachers authority in the class.</p> <p>Saves time of responding to students' irrelevant questions.</p> <p>Students become passive and bored with history lessons</p>	<p>Teachers to guide students to engage in group discussions and debates to collectively interpret and motivate students' interest in learning history.</p>
Examination oriented history syllabus	<p>Reproduction of teachers' notes.</p> <p>Tasks students to go through all the previous examination question papers.</p>	<p>Search for multiple sources of evidence from the past from the Internet</p> <p>Complement learning history by visiting historical sites like museums</p>
No alignment between the past and the present	<p>Current teaching does not align to the needs of the learners.</p> <p>Students cannot solve their current problems in reflection of what happened in the past</p>	<p>Rollout of the new lower level social studies curriculum that places emphasis on learner.</p> <p>Use available computers to search the internet for images about the past.</p>

Table 4. 2: An analysis of comments from the practitioners

Following table 4.2 above, the key themes/challenges presented by practitioners are: history teaching in Uganda engages in predominantly teacher-centered approaches (dictating notes) where students are passive and bored; agitation for accomplishing the detailed examination history syllabus coupled with little or no alignment between the past and the present. To solve these pedagogical problems, practitioners suggested ways of improving the situation by firstly, encouraging teachers to involve students in group discussions and debates collectively to interpret and motivate, and arouse students' interests in learning history. Secondly, by searching for multiple sources of information as evidence of the past from the internet and visiting historical sites to supplement the information covered within the history examination syllabus. Thirdly, an envisaged rollout of the new lower level social studies curriculum that places emphasis on learner needs by using learner-centered approaches blended with the use of available ICTs per context. Such lived practitioner experiences, suggestions and ideas were useful in formulating the basis for a potential solid solution (Herrington & Reeves, 2011) to the identified problem above.

Given that the practitioners are in most cases familiar with the problem area, their suggested views and ideas may provide rich practical insights and heuristics for solving or coping with similar problems, which may form the basis of draft design principles (Herrington & Reeves, 2011). It is worth mentioning that the practitioners' views highlighted above fall within historical hermeneutics' constructs of dialogue and learner-centered pedagogy (see chapter 5, section 5:2). Having obtained insights from practitioners, an initial literature review was conducted to refer to the work that has already been done in area of History Education, while providing insights on how similar problems might have been addressed (Herrington, n.d).

4.6.1.3 Initial literature review

I note that a similarity between the qualitative sentiments from the practitioners reflected in table 4.2 coincided with literature in the area of History Education. Research revealed that most teachers teach the way they were taught, and that what is taught in class is disconnected from serving the daily needs of the learner, leading to students' lack of

interest and motivation in the content knowledge of the subject (Historical Association, 2007; Oleson & Hora, 2012; Monte-Sano & Budano, 2013; Stock Dill & Moje, 2013; Harris & Girard, 2014). These highlights from literature are closely aligned with on-going discourses in History Education. (see chapter 2, section 2.8). Given that the literature review was conducted to establish how theoretical underpinnings can inform the proposed learning solution (Vesper & Herrington, 2011), the historical hermeneutics theory provided the theoretical language and constructs to craft the research questions to propose a learning solution to address the research problem (see chapter 3, section 3.1).

4.6.1.4 Creation of research questions

Following the exploration and identification of the research problem in collaboration and consultations with practitioners and the highlighted gaps in related literature (see chapters 1 and 2), the historical hermeneutics constructs of historicity and authenticity provided the basis for formulating the first two research questions (see sections, 3.5.1 & 3.5.2). Research question 3 was formulated on the basis of the outcome of the DBR process reflected in design principles (pedagogical framework).

- How is historicity constructed on a Wiki among pre-service teachers at Makerere University?
- How is authenticity of history meanings achieved among pre-service teachers?
- What design principles guide a pedagogical framework for construction of historicity?

The first research question engages with the theoretical term *historicity* with an aim to establish an understanding of how history meanings are constructed on a Wiki among pre-service teachers at Makerere University while the second research questions draws on the theoretical construct *authenticity* to establish how history meanings are validated among pre-service teachers. Therefore, the two research questions were aimed at better understanding of the systematic process used in coming up with the learning solution to the identified research problem. On the other hand, research question three focused on the creation of design principles as a practical outcome of this research.

That said, I now move to DBR phase 2, which is the development of solutions informed by existing formulated design principles and technological innovations (see figure 4.1).

4.6.2 Design Based Research Phase 2: Development of solutions informed by existing design principles and technological innovations

Consistent with the preceding sections, I continued with the steps described by Herrington, Reeves and Oliver (2010) and Vesper and Herrington, (2011: 595) to guide systematically the application of the DBR phase 2 in the following activities:

- The creation of draft design principles
- The consideration of implementation technologies and development of the prototype learning solution

4.6.2.1 Creation of draft design principles

Draft design principles are created to inform the design of a solution to the identified research problem (Vesper & Herrington, 2011). In this research, design principles were crafted through aligning Salmon's five-stage model (existing design principles) and historical hermeneutic theory (see table 5.1). This was deemed important because Salmon's model provided a guiding framework for effectively scaffolding educator, student roles, and activities that were relevant in facilitating this research process (Kovacic et al., 2008; Su & Beaumont, 2010; Wright, 2014). On the other hand, historical hermeneutics provided the theoretical language and guided the thinking of dialogical conversations between the educator and students mediated by the Wiki - a meaning-making environment (see chapter 5, section 5:2). In agreement with this, Herrington and Reeves, (2011) argue that the development of draft design principles to guide the design of an intervention requires a critical analysis, of relevant learning theories together with existing principles while also integrating ideas from practitioners. Consequently, existing design principles were reflected and expressed in a practical way to inform practice (see chapter 5, table 5:1). In supporting this view, Herrington and Reeves (2011) argue that design principles are given a verb to ensure that each principle can be related to an action

or activity in the learning situation. That said, under DBR phase 2, the crafted design principles guide the design and development of an intervention to address a significant identified problem (Herrington & Reeves, 2011). The proceeding section provides an example of how the drafted design principles in this research were implemented on the prototype innovative learning solution (ETs/Wikis).

4.6.2.2 Consideration of implementation of technologies and development of the prototype learning solution

Given the creation of formulated draft principles, a first attempt at an innovative solution informed of ETs (Wikis intervention) was developed to afford dialogic meaning making processes to solve the study problem. To this end, Reeves (2006) argues that DBR approaches engage interventions with technological affordances that are useful in supporting students' collaborative learning processes. Having considered the potential affordances of ETs such as Wikis, blogs, and discussion forums with varied educational purposes (see chapter 5 table 5.2), Wikis were identified as the preferred choice of ETs to facilitate the mediation of dialogue between the educator and students. I designed a Wiki intervention and customized it to the drafted design principles (see chapter 5). On successfully designing a Wiki intervention, evaluation and testing was done at implementation 1; lessons learnt were documented and recommendations were proposed that formed the basis to implementation 2 (see section 6.10). Consequently at implementation 2 the Wiki intervention was renamed Hermwiki as a short for Hermeneutics and Wiki (see figure 7:1). Having accomplished the design of a Wiki intervention (DBR phase 2), the next phase was the implementation and evaluation of the proposed solution with practitioners (McKenney & Reeves, 2012). Thus, DBR phase 3 involved iterative cycles of testing and refinement of solutions in practice.

4.6.3 Design Based Research Phase 3: Iterative cycles of testing and refinement of solutions in practice

The rationale of this phase was to implement and test, or to evaluate, an intervention as a working prototype (Vesper, 2014). Consequently in this study, the iterative cycles involved testing and refining the design principles through three iterations (implementations). The first iteration named „first implementation of design solution“ was conducted in form of a pilot study (see chapter 6) which involved eight participants. Thus, the implementation of the first design solution involved testing the existing design principles through shared construction of history meanings on the Wiki. To facilitate this implementation process, participants engaged with a history topic - *Manifestations of Neocolonialism in Uganda* on the Wiki (see chapter 6, figure 6:4). In addition to the Wiki artifacts, written interviews and observations were employed as the data collection methods. At end of implementation 1, lessons learnt were documented and recommendations were suggested that provided the basis for implementation 2 (see sections 6.9 and 6.10). It is worth mentioning that in DBR phase 3, after the first implementation of the solution with the target group of participants, the design solution was refined and implemented again in continuous cycles of design (DBR Collective, 2003). This was an important contribution as it guided me to iteration 2, the second implementation of the design solution (see chapter 7). Implementation 2 involved 20 participants who unanimously agreed to deliberate on the history topic, *Ethnicity in Uganda* (see chapter 7, sections 7.3.2 and 7.3.5). Thus at implementation 2, I engaged with interviews, observations and questionnaires as data collection instruments with the aim of answering the research questions (see sections 7.11 and 7.17). The responses to the research questions guided me to revise and modify the design principles according to what worked and what did not. Subsequently the design principles that were not successfully achieved provided the basis for implementation 3. The third implementation of the design solution involved five participants who proposed and agreed to deliberate on the topic *Slave Trade in East Africa* (see chapter 8). I engaged with observations as the major data collection method, observing shared construction of history meanings on the Wiki (see tables 8.1 and 8.2). Therefore implementation 3 was successfully achieved

as participants drew lessons from their lived experiences to propose solutions to overcome the manifestations of slavery in the present situation.

It is important to note that each implementation cycle resulted in further modifications to design principles and the Wiki intervention. These changes were influenced by what worked and what did not at the three different implementations of the study. Following DBR phase 3, reflections were done to produce guiding design principles (Herrington & Reeves, 2011) as reflected in DBR phase 4.

4.6.4 Phase 4: Reflection to produce design principles and enhance solution implementation

DBR phase 4 aimed to produce design principles that could inform future development and the implementation decisions (Herrington, n.d). Thus, transition changes in the design principles at these iterative cycles evolved using name changes to point to different design principles (see chapter 9, table 9.1). In essence therefore the practical output of the DBR process was reflected in the final guidelines illuminated in the study's practical contribution, highlighted as the pedagogical framework for construction of historicity (see chapter 10, table 10.2).

Having presented the application of the four phases of the DBR, table 4.3 below provides a tabular representation of how the phases were applied throughout the entire research.

PHASES OF DBR COVERED	NAMES OF CHAPTERS
Phase 1 Identification of the problem	Chapter 1 Introduction Chapter 2 Investigating the Research problem
Phase 2 Development of solutions informed by existing design principles and technological innovations	Chapter 3 Philosophical Underpinnings Chapter 4 Design Based Research Methodology Chapter 5 Development of the Design Solution
Phase 3 Iterative cycles of testing and refinement of solutions in practice	Chapter 6 First Implementation of Design Solution Chapter 7 Second Implementation of Design Solution Chapter 8 Third Implementation of Design Solution
Phase 4 Reflection to produce Design principles and enhance solution Implementation	Chapter 9 Reflection of DBR phases Chapter 10 The thesis contribution

Table 4. 3: How the DBR phases were applied throughout the chapters of the entire thesis

The proceeding section describes the use of a case study strategy as a systematic method for data collection (see, figure 3.2).

4.6 Case study strategy

A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real life context especially when the boundaries between the phenomenon and the context are not clearly evident (Yin, 2009: 18). Moreover, case studies can be interventionist, start with a theory, and can be used to develop both a modified practical and refined theory (Herrington, 2010). These principles are compatible with DBR methodology employed in the current research that focuses on establishing theoretically inclined solutions to address a problem in an authentic context. Similarly Miles, Huberman and Saldana, (2014:28) define a case as a phenomenon of some sort occurring in a bounded context, in effect a unit of analysis. Thus, a case is viewed as a unit of analysis.

From this point of view, the case of pre-service teachers enrolled for a Bachelor of Arts with Education Degree at Makerere University bounded by particular time (2013-2016) was viewed as the primary unit of analysis in this study. The case studies could be distinguished according to their nature, theoretical aims, number and units. These distinct features of the case study types are summarized as follows.

Criteria	Type of case study	Authors
Nature of the case	Intrinsic: unique and undertaken for better understanding of a particular case but not to generalize Instrumental: examined to give insight into an issue seeks to generalize and claims to be representative Collective: conducted at one site by examining a number different sites	Stake, (1995), Punch, (2009)
Theoretical aims	Descriptive: requires theory to guide data collection Exploratory: data is collected before the theory Causal: looks out for cause and effect relationships	(Yin, 2009)
Number	Single-focus is within a case Multiple-focus is within and across cases	Yin, (2009), Punch, (2009)
Units	Embedded: more than one sub-unit Holistic: global	(Yin, 2009)

Table 4. 4: Types of case studies

In reference to table 4.4, case study strategy was proposed to prove, disprove or modify the theoretical models, particularly the historical hermeneutics, to be tested in practice on the Wiki intervention. In other words, this study closely aligned with the criteria focusing on theoretical aims, particularly descriptive case studies that required theory to guide the data collection. Descriptive case studies were compatible with the DBR methodology that proposes theoretical based solutions to address real life educational problems. Also, the focus on one university, Makerere University, provided a natural setting in which pre-service teachers' practices and interactions could be explored extensively to get a deeper understanding of their practices in the social contextual setting. It is important to note that, generalization is not the prime purpose of a case study (Yin, 2009; Bryman, 2008). However, it is pertinent to illuminate what aspects may be transferable to different contexts and in what ways. In line with this view, though not generalizable, design principles have potential to guide design of interventions in diverse contexts. This implies that, findings on how historicity is constructed and authenticated could provide a base and insights on the nature of pre-service teacher education in other Universities similar to the Makerere University and how such contexts could be.

Case studies were used to investigate the „how“ and „why“ questions, focusing on contemporary events within real life contexts (Yin, 2003). This was evident in the research questions in this study that sought to understand how historicity and authenticity could be constructed on the Wiki.

That said, the use of the case study strategy can result in the selection of multiple methods of data collection which are essentially qualitative (Yin, 2009), as presented in the next section.

4.7 Data collection methods

Given that DBR allows for multiple sources of data collection methods to seek confirmation, (Bryman, 2012; Maro, 2013; Akker, et al., 2013), I engaged with different data collections methods; semi-structured questionnaires, semi-structured interviews, participant observations and reflective notes (research blog site) from the three

implementations of design solution (see chapters 6, 7 and 8). This was deemed important for two main reasons. Firstly, these provide a richer understanding of history meanings and cross-validate results through triangulation. Secondly, to ensure that the different data sets were aligned to answering the research questions. Having said that, I now present a description of each of the data collection methods employed in this study.

I particularly engaged with a semi-structured questionnaire at the second implementation of design solution, aimed at obtaining open views and flexibility. Moreover, the rationale for engaging with the questionnaire was to facilitate the refinement process that led to a new understanding of the problem, realigning the solution to the problem and also readjusting of the revised design principles.

The semi-structured questionnaire was first piloted with fellow doctoral students and later study participants. The pilot attempted to ensure that the questions were not ambiguous, were straightforward, understandable and answerable to the main research questions. My fellow doctoral students helped shed light on the rationale and logical dimension while the pre-service teachers helped to engage the level of comprehensiveness of the questionnaire questions. The questionnaire comprised three sections, with the first question inquiring about the demographic background of the respondents, the second and third sections focusing on the key research questions (see Appendix E). This implies that the findings from section B and section C were in response to the study questions one and two. Consequently, following the hermeneutic perspective of obtaining multiple perspectives to explain a similar phenomenon (Gadamer, 2004), semi-structured questionnaires were complemented with interviews.

Semi-structured interviews were preferred in this study mainly for two reasons. Firstly, they allowed flexible probing of the participants' practices while at the same time gave the researcher and the participants an opportunity for open questioning and answering (Gray, 2009). Secondly, they afforded exploration of participants' interpretations of history meanings in relation to situations and their social cultural significance (Gray, 2009, Bryman, 2012). Given that the first implementation of the design solution was conducted as a pilot study, interview questions were documented in reflection of

possibilities, challenges and lessons learnt in engaging with the collaborative construction of history meanings on the Wiki (see Appendix A). Pilot studies in qualitative research helped refine data collection plans with respect to both the content of the data and the procedures to be followed (Yin, 2009: 92). Thus, written responses to the interview were obtained within a week in December 2013 and these were subsequently documented as lessons learnt that served as the basis for the second implementation of design solution (see chapter 6, section 6.10).

Consequently, semi-structured interviews for the second implementation of the design solution were conducted in March 2015. Firstly, the interview questions were piloted with one colleague from the History Education Unit and eight pre-service teachers from Makerere University. The pilot attempted to ensure that there were no errors or misleading interview questions and focused on answering the research questions. The place and setting for conducting the face-to-face interview was my office as participants suggested it had less interference and minimum noise. It should be noted, however that only ten participants engaged in the subsequent procedural steps at the interview sessions, perhaps because students were busy preparing for their end of semester examinations and also given the voluntarily recruitment of free entry and exit (see chapter 7). Thus, the interview guide consisted of 17 question items focused on the key research question and was conducted within 30-45 minutes (see Appendix F). The interview process was audio-recorded (with the consent of the interviewees) to maintain a level of accuracy and richness of the data. The interviews were later transcribed and analyzed in alignment with the research questions (see Appendix H). I engaged with observations for further triangulation of data.

I particularly engaged with participant observation in this research for two reasons. Firstly, it permitted flexibility in the educator's and students' interaction with the Wiki intervention in a natural manner. Secondly, participant observation would afford direct experiences of how participants engaged with the construction of historicity and authenticity on the Wiki meaning-making platform. As researcher, I took on the role of participant observer engaging in online observations, viewing online presence and

postings (see chapter 10, section 10.4). To complement and triangulate the above data collection methods, I engaged with research blog site.

Blogs are regularly updated web 2.0 websites operated by individuals or small groups and are written in an informal, dialogical style (Cartliner & Shank, 2008). For the purposes of this study, the research blog site was viewed as written accounts of preconceptions, opinions, views and experiences in the course of collecting data. Moreover, the rationale for engaging with blog reflections was to keep an account of my research (see Appendix D). Daily reflections were viewed as an important strategy rather than risky option of relying on memory. The following sections illuminate the data analysis procedural steps employed in this study.

4.8 Data analysis

Decisions with regard to analysis ought to align with philosophical and methodological choices on which the research is premised (Patterson & Williams, 2002). Given the methodological choices of data collection presented in the preceding section, my aim in this section is to describe how I intended to use the theory-driven analytical approach to provide a systematic structure to analyze data generated in the current research. It is worth mentioning that in chapters 6 and 8, data was predominately collected through observations of the changes of the design principles. Evaluation and analysis were done according to which design principle worked well and which were not successfully achieved so that the learning environment would be improved (Reeves, 2006; Herrington, 2008).

I adopted the concept of hermeneutics cycle driven analysis to refer to theory-driven analysis for two reasons. Firstly, hermeneutic cycle driven analysis provided a systematic language and process for gaining understanding and interpretation of the texts constructed in this research (Fleming, Gaidys, & Robb, 2003, Turner, 2003). Secondly, this form of analysis was relevant in trying to get the actual communication of the author as a part without misunderstanding the text viewed as the whole (Porter & Robinson, 2011). Therefore, hermeneutic cycle driven analysis majorly focused on the cyclic

interpretation of the „whole“ and the „parts“, also referred to as the part-whole method (Gadamer, 1985). The hermeneutic cycle is a metaphor for understanding and interpretation, which is viewed as a movement between the parts (data) and whole (evolving understanding of the phenomenon), with each complementing each other such that learning is cyclic and iterative (Patterson & Williams, 2002; Ajjawi & Higgs, 2007). Subsequently, the hermeneutic cycle focuses on dialogical understanding of the text as a whole and the interpretation of the parts in which descriptions are guided by anticipated explanations (Gadamer, 1976: 117). Hence, to ensure a systematic analytical framework, I focused on the themes arising out of the data, provided an example of such data in form of an extract viewed as the part and then explained the whole phenomenon in relation to History Education, theoretical constructs and research questions-whole (see analysis example in chapter 7; theme-extract-explanation). The hermeneutic cycle driven analytical procedure is now shown in three steps in correspondence with Van Manen, (1990: 1997) & Fleming et al., (2003: 118).

4.8.1 Step 1: Gaining understanding of the text

Hermeneutic cycle driven analysis primarily focuses on the texts as a research data source. Thus texts are viewed as both data and a product of phenomenological research (Ajjawi & Higgs, 2007). All texts from data sets should be examined to find expressions aligned to participants“ words that align to theoretical constructs and the research questions. Accordingly, hermeneutics analysis involves reading and re-reading all the written texts to become familiar with the text, and repeatedly listening to audio recording for the case of interviews, along with making field data notes and observations (Ajjawi & Higgs, 2007). This process is often referred to as „immersion“ in data (Van Manen, 1997). Consequently, transcription of these texts, especially interviews, is necessary for the detailed dialogue between the researcher and the data collected in form of texts (Patterson & Williams, 2002). After subscription the texts are again studied and grouped into themes and sub-themes arising out of the data and related to theoretical constructs and research questions.

4.8.2 Step 2: Development of themes and sub-themes from the texts

This hermeneutics step of analysis facilitates the development of themes, which in turn can lead to a detailed understanding of the events under investigation. As earlier mentioned, themes are always generated in response to the research questions and theoretical underpinnings. Moreover, every single sentence or section (part) of the text is investigated to expose its meaning to understanding of theme (whole). This form of cross checking provides a progressively deeper understanding of the participants' experience and improved dialogue between the texts, themes developed and the researcher from the participant (Ajjawi & Higgs, 2007). At this step continuous movements backwards and forwards between the literature, research's pre-understandings and texts are evident informed by hermeneutic analysis (ibid, 2007).

Themes developed in qualitative research should be challenged by and in turn challenge the researcher's pre-understanding. Researchers must constantly ensure that they focus actively on changes to their pre-understanding as they dialogue with the text. This is relevant as it attempts to understand how personal feelings, historical, social background influences and experiences affect the research and then integrate into the study (Fleming et al., 2003). Moreover, reflecting on lived experiences provides initial awareness of personal prejudices and biases that forms part of analysis (Van Manen, 1990). In support of this view, Gadamer warns against personal hidden prejudices in trying to achieve true understanding or analysis. He argues that both prejudices and biases are shaped by context, generation, society and culture, among others (Gadamer, 1975). This implies that researchers ought to discover how prejudices contribute to understanding or misunderstanding of the texts.

4.8.3 Step 3: Understanding inter-relationships among themes and sub-themes

This step involves the identification of passages that seem to be representative of shared understanding between the researcher and participants. To this end, Patterson & Williams, (2002) argue that interpretation should not only be limited to identifying themes but on seeing, understanding and explaining the interrelationships among themes as a key feature of the hermeneutic analysis. This is an important process of analysis as it offers a

holistic and insightful interpretation of in-depth meanings to texts, and because the meaning of the „whole“ influences understanding of every other „part“ of the text and goes on in an iterative process (Porter & Robinson, 2011). It is evident that there is ongoing interpretation of the research text through comparing and contrasting pre-research assumptions about the phenomena being investigated (Ajjawi & Higgs, 2007). By constantly cross checking personal interpretations with the original transcripts, faithfulness to the participants“ data can be generated (ibid, 2007).

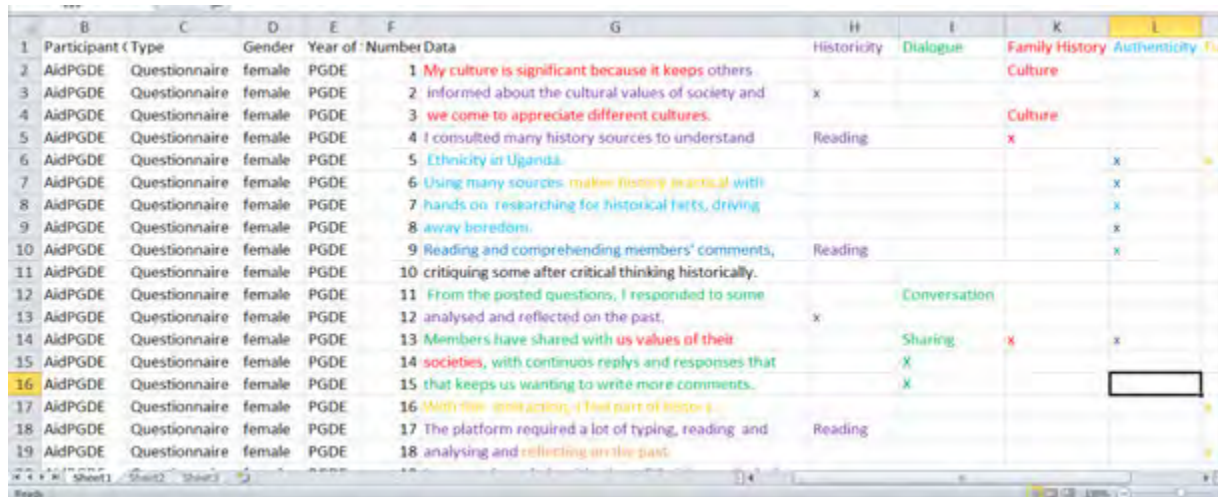
The proceeding section presents how the analytical steps were applied in this research.

4.8.4 Application of hermeneutic cycle driven analysis steps

As earlier mentioned, the first step in analysis involved gaining understanding of the text. I began this process by reading and re-reading all the text from the data sets. This step was important in helping me become familiar with the contents of the text while also reflecting on how the texts aligned to my research questions. Following the hermeneutic cycle, this step involved gaining understanding of the contents of the texts, words, sentences and phrases (parts) in relation to how they responded to the research questions (whole). I repeatedly listened to the audio recording of the interviews and transcribed the verbatim conversations between the interviewee and interviewer, along with field notes, so that I did not miss any words in the conversation. This process went on for two days to ensure that I captured all the data and re-understood what the data was about. This process helped me gain a preliminary interpretation, which then facilitated the coding process (Ajjawi & Higgs, 2007). Gadamer argues that understanding of the text only really becomes possible on the basis of critical reading to obtain full meanings (Niekerk, 2002).

Consequently, all the data sets were entered in to an excel spread sheet as a central place where it was sorted, categorized, re-read and coded according to the themes emerging from the data (see Appendix I). Extracts from the excel analysis are reflected in figures 4.2 and 4.3 illustrating the students“ demographic details linked to the historical

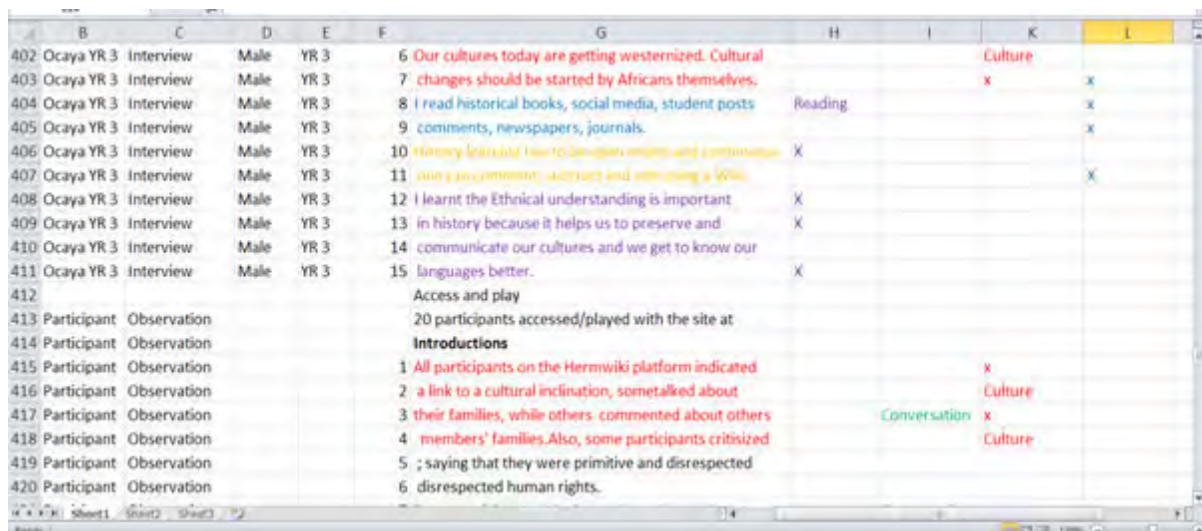
hermeneutics constructs, historicity, dialogue, family history, authenticity and fusion of horizons.



This Excel spreadsheet displays data for 19 participants, all identified as 'AidPGDE' and 'female'. The data is organized into columns: B (Participant ID), C (Type), D (Gender), E (Year of Data), F (Number), G (Data), H (Historicity), I (Dialogue), J (Family History), K (Authenticity), and L (Fusion of Horizons). The 'Data' column (G) contains 18 numbered entries describing cultural experiences and reflections. The 'Historicity' (H) and 'Dialogue' (I) columns have 'x' marks corresponding to specific data points. The 'Family History' (J) and 'Authenticity' (K) columns also show 'x' marks for certain entries. The 'Fusion of Horizons' (L) column has 'x' marks for entries 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

B	C	D	E	F	G	H	I	J	K	L
1	Participant	Type	Gender	Year of	Number	Data	Historicity	Dialogue	Family History	Authenticity
2	AidPGDE	Questionnaire	female	PGDE	1	My culture is significant because it keeps others				
3	AidPGDE	Questionnaire	female	PGDE	2	informed about the cultural values of society and	x			
4	AidPGDE	Questionnaire	female	PGDE	3	we come to appreciate different cultures.				
5	AidPGDE	Questionnaire	female	PGDE	4	I consulted many history sources to understand	Reading		x	
6	AidPGDE	Questionnaire	female	PGDE	5	Ethnicity in Uganda.				x
7	AidPGDE	Questionnaire	female	PGDE	6	Using many sources, make history practical with				x
8	AidPGDE	Questionnaire	female	PGDE	7	hands on researching for historical facts, driving				x
9	AidPGDE	Questionnaire	female	PGDE	8	away boredom.				x
10	AidPGDE	Questionnaire	female	PGDE	9	Reading and comprehending members' comments,	Reading			x
11	AidPGDE	Questionnaire	female	PGDE	10	critiquing some after critical thinking historically.				
12	AidPGDE	Questionnaire	female	PGDE	11	From the posted questions, I responded to some		Conversation		
13	AidPGDE	Questionnaire	female	PGDE	12	analysed and reflected on the past,	x			
14	AidPGDE	Questionnaire	female	PGDE	13	Members have shared with us values of their		Sharing	x	x
15	AidPGDE	Questionnaire	female	PGDE	14	societies, with continuous replies and responses that		x		
16	AidPGDE	Questionnaire	female	PGDE	15	that keeps us wanting to write more comments.		x		
17	AidPGDE	Questionnaire	female	PGDE	16	With this application, I feel part of history.				
18	AidPGDE	Questionnaire	female	PGDE	17	The platform required a lot of typing, reading and	Reading			
19	AidPGDE	Questionnaire	female	PGDE	18	analysing and reflecting on the past.				

Figure 4. 2: Excel data analyses extract 1



This Excel spreadsheet displays data for 20 participants, all identified as 'Ocaya YR 3'. The data is organized into columns: B (Participant ID), C (Type), D (Gender), E (Year of Data), F (Number), G (Data), H (Historicity), I (Dialogue), J (Family History), K (Authenticity), and L (Fusion of Horizons). The 'Data' column (G) contains 15 numbered entries describing cultural experiences and reflections. The 'Historicity' (H) and 'Dialogue' (I) columns have 'x' marks corresponding to specific data points. The 'Family History' (J) and 'Authenticity' (K) columns also show 'x' marks for certain entries. The 'Fusion of Horizons' (L) column has 'x' marks for entries 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 18

to code check but rather was rigorous in recording coded items related my theoretical constructs and the highlights in the participants' words (see Appendix I). Coding ensured that data was categorized into similar data chunks that enabled easy relationship with the research questions, (aligned to themes) condensed through analyzable units (Miles et al., 2014).

I corrected participants' direct quotations that were not written well as this was significant in providing clarity to the reader. Moreover, to ensure that I did not transfer my personal understanding about the construction of historicity on the Wiki, I constantly recorded my daily reflections through blog entries. This was significant as it left the text to talk to me without infringing my own understanding to the data collected (see sections 6.3.3 and 7.13 and extract example in figure 4.5).



Figure 4. 4: Daily reflections extract

Step 3 - understanding inter-relationships between themes and sub-themes was evident during the interpretation of sub-themes where inter-relationships focused on interpreting themes in relation to History Education context (see chapter 7). In agreement with this, historical hermeneutics postulates that there is no understanding or truth without interpretation (Gonzalez, 2015). However, it is worth mentioning that the hermeneutic cycle driven analytical steps (theme-extract-explanation) were more prevalent at the design of second implementation (see chapter 7). The reason for this was two-fold. Firstly, more data sets were available having engaged with interviews, questionnaires, observations and reflective blog entries as multiple methods of data collection. Secondly, data collection and analysis spanned a longer period - one year - and this gave me time to read and analyze the data over and over again. It's worth mentioning that, given the large amount of data collected, I provided analysis examples (excerpts) that would illustrate to the reader how analysis was conducted and this analysis procedure could be generalizable to cater for the rest of the data.

4.9 Ethical considerations

Research within an education setting predictably raises ethical concerns relating to the safety, confidentiality, anonymity and informed consent of the participants (Punch, 2009, Gray, 2009). In this study, pre-service history teachers were the human subjects critical in decision-making and for providing data in the form of artifacts/texts. Ethical clearance was obtained from the University of Cape Town's (UCT) Faculty of Humanities before conducting the study. A proposal outlining the intended study was submitted when obtaining ethical clearance and all ethical guidelines were adhered to. Participants were consistently informed of the researcher's presence and intentions for research. Consent forms were distributed and a rapport was initiated to ensure a close communion between the researcher and the respondents (see Appendix H).

4.10 Chapter Summary

In this chapter, DBR was selected as appropriate methodology focusing on a systematic procedural process illuminated in addressing the research problem. An illustration of how the DBR methodology was applied within the entire thesis was highlighted. A case study

strategy with the related data collection process was presented. The chapter concluded with an illumination of how the hermeneutic cycle driven procedural analysis was implemented within the research.

The proceeding chapter presents the development of the design solution captured by the DBR phase 2.

CHAPTER 5: THE DEVELOPMENT OF THE DESIGN SOLUTION

5.0 Chapter Overview

Following the execution of DBR phase 1, this chapter proceeds to DBR phase 2 reflected as the development of solutions informed by existing design principles and technological innovations. A design solution to address the identified problem is proposed, informed by existing design principles drawing on Salmon's five-stage model and the historical hermeneutic theory. The chapter concludes by highlighting the technological affordances of the design solution (Wiki intervention).

5.1 Existing draft design principles

In DBR phase 2, a solution to the identified educational problem was implemented in an authentic classroom or educational setting (Herrington, n.d.). Herrington and Reeves, (2011) argue that in order to create an appropriate solution, literature should be consulted to find existing draft design principles or advise on how a similar problem may have been addressed. Consequently, previous studies by Kovacic Bubas and Zlatovic (2008); Su and Beaumont, (2010); Salmon, Nie and Ediringha, (2010); and Wright, (2014) show that Salmon's five-stage model provides a guiding framework or existing draft principles for dialogue and interaction in online pedagogical processes by highlighting how an educator scaffolds learning and the role of students in the process (Salmon, 2002).

Therefore, in the current research, the design principles were shaped by Salmon's five-stage model because of its procedural structure on utilizing a learner-centered pedagogy (Kovacic, Bubas & Zlatovic, 2008). Design principles were conceptualized to inform reusable guidelines for others wishing to create their own solutions to educational problems across sectors (Herrington & Reeves, 2011). These principles emerged from and connected to theories of learning and instruction through advancing both practical and theoretical understanding of the focus area (Barab & Squire, 2004; Herrington, Herrington & Mantei, 2009). The five-stage model of online learning was advanced by Salmon with an aim of helping online participants learn the techniques of using the e-learning system communicating, studying it and creating greater interaction and

communication between teachers and students during the pedagogical process (Salmon 2002). Moreover, Salmon's model was an appropriate resource for meaningful pedagogical activities and greater online interaction and collaboration between students and between students and their teachers (ibid, 2002).

5.2 Salmon's five-stage model

Salmon's five steps include access and motivation, online socialization, information exchange, knowledge construction and development (Salmon 2011). These steps are presented in figure 5.1

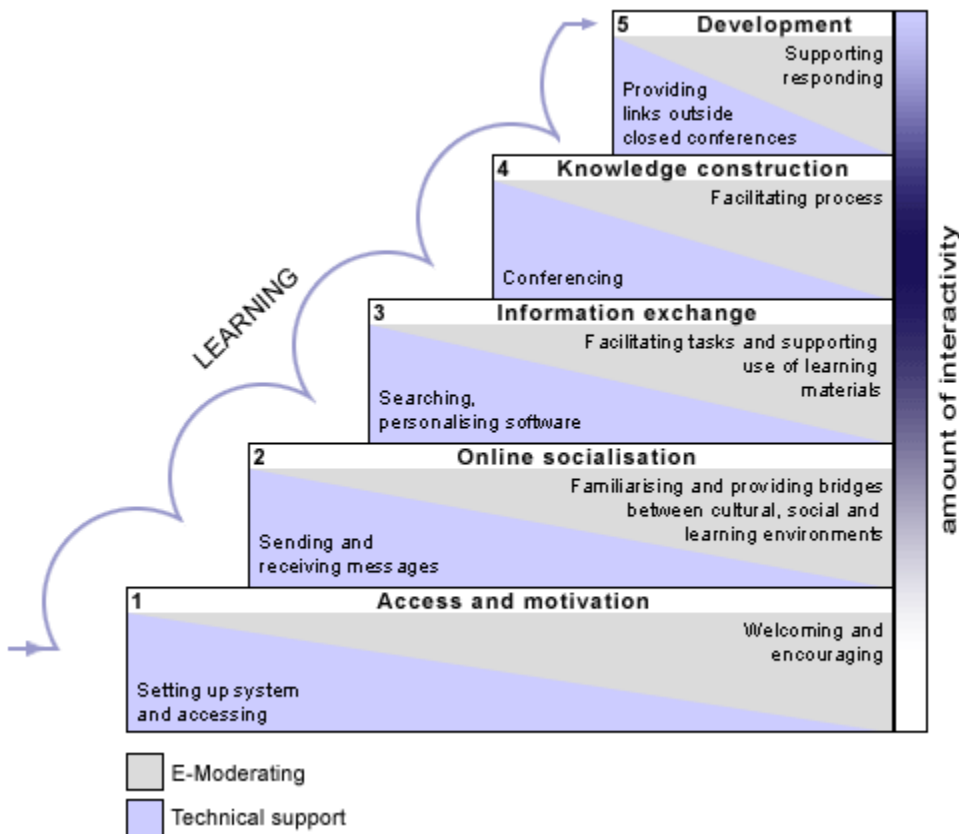


Figure 5. 1: Salmon's Five-stage model for e-Learning (Source: Salmon, et al., 2010:170)

With reference to figure 5.1, Salmon's step 1 of the model entails access and motivation to setting up a system and accessing it. Under this step, the participant is required to login, find the right place, and know how to take part. This involves participating in

interesting e-tivities (online learning activities) with the educator welcoming, encouraging and providing clarifications on the purpose of the activity. Importantly at this stage, participants need to acquire the emotional and social capacity to learn with others online (Salmon 2002: 12). Step 1 also directly enables participants to increase their comfort with using technology through engaging with the online environment. The key is to recruit participants' understanding about why they are learning, why in this way, as well as what they have to do to take part with a gentle but interesting introduction (Salmon 2002; 2011; 2013). Step 1 is over once participants have posted their own messages and responded to one another (Salmon 2011).

Step 2 of the model engages with on-line socialization. This involves helping participants develop their online identities as individuals and also finding others with whom to interact (Salmon 2002; Salmon 2011; Salmon, 2013). On-line socialization should promote groups and achieve much more collaborative learning later on (Salmon 2002:23). Step 2 is over when participants start to know themselves and share with themselves online and is the basis for future information exchange and knowledge construction (Salmon 2002:24).

Step 3 entails information exchange. At this step each participant is actively involved, each with a role to play (Salmon et al., 2010). Participants interact with course content and with peers and the educator. They need knowledge to access information and knowledge of strategies for purposeful information retrieval. Participants look to the e-moderators to provide direction through the mass of messages and encouragement to start using the most relevant material (Salmon, 2002). Demands for help from the moderator can be considerable because the participants' seeking, searching and selection skills may still be low. There can be many queries about where to find one thing or another (Salmon 2002:26). Step 3 is over when participants learn how to find and exchange information productively and successfully through e-tivities (Salmon 2002:28).

Step 4 involves knowledge construction, engaging in frequent discussion and high level interaction and scaffolding where participants add, edit and contribute to each other work (Salmon 2011). This implies that participants engage in a never ending dialectical activity

of asking and answering each other's questions hence share their own interpretation of history meanings. During this process participants remain open minded to new topics and ideas with a view of obtaining endless realities. Online activities offer knowledge building and construction (rather than exchange of information) or a series of ideas or challenges (Salmon 2002). E-moderators have important roles to play at this step. The best moderators demonstrate online the highest levels of skills related to building and sustaining groups (Salmon 2002:31). This step is considered successful when participants have engaged in active building of knowledge as a team.

Step 5 involves development. Participants are concerned with planning and evaluating their own learning while applying it to individual contexts (Salmon, 2011). Participants become responsible for their own learning and skills of critical thinking and reflection comes into play (ibid, 2011). The role of the educator is minimal and quite often, experienced participants become more helpful and guide newcomers to the system (Salmon, 2002:33).

Carrying on from this, the next section highlights how Salmon's five-stage model is aligned to the historical hermeneutics theory.

5.3 Crafting design principles through aligning Salmon's five-stage model and historical hermeneutic theory

DBR approaches require more than simply showing that a particular design works, and demand that the researcher designs principles to advance both the practical and the theoretical understanding while providing evidence based claims on how learning happens (Barab & Squire, 2004; Herrington et al., 2009). Given that design principles connect with the theory of learning (Herrington & Reeves, 2011), I combined the historical hermeneutics theory with Salmon's five-stage model. This aimed to ensure that the findings of this research were presented in a form that was readily adaptable to other contexts and that the history knowledge constructed was not lost to other professions (Reeves, 2006; Herrington, McKenney, Reeves, Oliver, 2007; Herrington et al, 2009). Therefore the marriage between Salmon's five-stage model and the historical

hermeneutics theory provided a systematic framework of formulated design principles (see table 5.1).

Moreover, the historical hermeneutics theory was important in this alignment because it advanced human understanding that is achieved through a combination of theory and the practical aspects of making interpretations and understandings of the past (Gadamer, 1975; Gander, 2015). This view is compatible with DBR approach that typically aims to create novel conditions of linking theory to practice in authentic classroom contexts (Herrington, 2006). As already highlighted in the introduction, learning about the past should potentially be reflected and applied in actual practice so that the relevancy of History Education is realized. Therefore, it is such theoretical ideas aligned to existing draft design principles and practitioners' comments (Herrington & Reeves, 2011) that form a relevant strategy in the development of the evidence based solutions. In the practical sense, design principles are best expressed in active terms that enable their ready use by teachers and educators presented with similar contextual problems (Herrington et al., 2009). Moreover, design principles can be substantive in nature referring to characteristics of an intervention (what it should be like) or of a procedural nature (how it should be developed) (Van den Akker, 1999; Herrington et al., 2009:130). Consequently, table 5.1 below illustrates an alignment between Salmon's five-stage model and the historical hermeneutics reflected in formulated design principles.

Formulated design principles	Substantive emphasis Characteristics	Procedural emphasis Method	Historical hermeneutics constructs
To enable access and motivation	<p>Improve digital literacy skills by <i>playing around with the user interface to access Wiki site.</i></p> <p>Blended learning</p> <p>Collaboration</p> <p>Group identification</p>	<p>The Researcher: Creates a protected Wikispaces site. Sends invitation emails to participants from Wikispaces. Welcomes, motivate and guides participants through obtaining technical support. Sends out SMS, email invitations for a face-to-face orientation meeting.</p> <p>The participants: Sign into Wikispaces site Familiarize with the</p>	Fusion of horizons

	of a history topic of interest by linking to the students' interests	Wikispaces. Attend the face-to-face orientation meeting.	
To promote online socialization	Providing online identities Authentic task	The Researcher: Tasks participants to introduce themselves by name and year of study. Guide and direct participants on accessing the pre-engagement task (Preconceptions of History Education in Uganda). Sets an authentic pre-engagement task. The participants: Introduce themselves by name and year of study. Access and engage with the required task. Post and share views on preconception task, comment and respond to peers.	Dialogue Awareness of Prejudices and Biases Dialogue
To support information exchange	Exchange of historical texts, pictures and images Open questioning & answering	The Researcher Facilitates questioning and answering on the meaning. Ask participants to get in to groups of two and identify a history topic. The participants: Brainstorm and unanimously agree on the history topic of interest. Share history texts, pictures and images on the agreed upon topic of interest. Question and obtain responses on the texts, pictures and images.	Learner centered pedagogy Collaborative interpretation-dialogue Historicity
To promote knowledge construction	Support collaborative construction of history meanings.	The Researcher: Guides participants to collaborative construction of knowledge. Facilitates the exploration of multiple sources of evidence. Presents an authentic task.	Historicity Dialogue

		The participants: Explore multiple sources of evidence to obtain history interpretation. Attempt the authentic task Collective negotiation of the history meanings.	Fusion of horizons Authenticity
To foster development	Linking the past to the present	The Researcher: Tasks participants to reflect on their lived experiences of learning history The participants: Share their experiences by linking the past to the present	Fusion of horizons Authenticity Relevancy of history

Table 5. 1: Formulated design principles

In table 5.1, formulated design principles were obtained through alignments with the substantive and procedural characteristics from which historical hermeneutics constructs emerged. To this end, Wang and Hannafin, (2005), and Herrington and Reeves, (2011) postulate that design principles presented in that form have the potential to bridge effectively the gap between educational theory and practice. In reference to the DBR phase 2, the crafted design principles guided the design and development of an intervention to address a significant identified problem (Herrington & Reeves, 2011). This therefore implies that once draft principles have been created, the proposed intervention is designed and developed in reflection of the formulated design principles (Herrington, n.d).

The proceeding section presents an exploration of ETs affordances in this study.

5.4 Considering ETs affordances

As earlier highlighted, engagement with ETs will potentially initiate creativity and innovation in History Education. I explored ETs that appeared most useful in enhancing dialogical conversations between the past and present among teachers and students. Consequently, I considered the educational affordances (Bower, 2008) of ETs; blogs, discussion forums and Wikis as presented in table 5.2.

	Write-ability	Share-ability	Multiple content authoring	Peer reviews/add edit content
Discussion forums	√	√	×	×
Blogs	√	√	×	×
Wikis	√	√	√	√

Table 5. 2: ETs Affordances Analysis (modified from Bower, 2008)

Given table 5.2, my preference for the Wiki as the most useful intervention was aligned to its media affordance of write-ability, read-ability, share-ability, multiple content authoring and the affordance to enhance peer reviews (Ibid, 2008). Such affordances were significant in authenticating history meanings as opposed to the blogs and discussion forums (see chapter 1, section 1: 5 and chapter 2, section 2:9).

5.4.1 Designing the Wiki meaning-making environment

The process of designing a relevant Wiki intervention was guided by the affordance analysis of the two different types of Wikis: Media Wiki ² and Wikispaces ³ (Bower, 2008). Both types potentially afford facilitating online collaboration, encouraging creativity and critical analysis of peers' work, and had a history function to track changes (Martin & Kirthi, 2010). However, although Media Wiki is a free server based Wiki with page-editing tools, it is somewhat challenging to learn and requires subscription and payment (Jakes, 2006). This therefore prompted me to engage with Wikispaces as a free page tool with educational specific pages that are limited to only space members to edit them (ibid, 2006). My focus was on using Wikispaces as a meaning-making environment to mediate dialogical constructions of history meanings between the researcher and participants. Consequently as a first step, I thoroughly read up about Wikispaces to gain

² <http://www.mediawiki.org>

³ <http://www.wikispaces.org>

a deeper understanding of what it is, how other people have used it and the benefits and challenges of using it (Crane, 2012).

This step guided me on to creating Wikispaces pages (<http://tinyurl.com/jzbz8xy>) and posted an introductory welcoming message for the participants (Sebbowa et al., 2014).

5.5 Chapter summary

This chapter described how literature was used to identify existing design principles or forms of advice on how problems similar to my study challenge were addressed. Thus, the DBR notion of connecting existing draft design principles with theories of learning (Herrington & Reeves, 2011) was reflected by aligning the Salmon's five-stage model with historical hermeneutics. This combination resulted into formulated design principles that could be used to inform practice mediated by the Wiki intervention. In other words, this chapter was significant in proposing the design of the Wiki intervention and formulated design principles applicable to the research challenge of History Education.

The proceeding chapter presents DBR phase 3 reflected as iterative cycles of testing and refinement of solutions in practice (Reeves, 2006).

CHAPTER 6: FIRST IMPLEMENTATION OF THE DESIGN SOLUTION

6.0 Chapter Overview

This chapter describes the first implementation of the design solution (Wikispaces intervention), tested or tried out in form of a pilot study. The chapter begins by providing a procedural structure for implementation 1. This is followed by a presentation of observational findings from each of the formulated design principles. The chapter concludes by documenting the lessons learnt and recommendations that formed the basis for the second implementation of design solution.

6.1 Procedure for implementation 1

As mentioned in the preceding chapters, Salmon's five-stage model provided the systematic procedural process upon which the activities on Wikispaces were implemented in practice.

For the purpose of this research, I use the term Wiki meaning-making environment to refer to Wikispaces to ensure consistency throughout the study. I followed the procedural process of initiating the formulated design principles into practice (see table 5.1). Thus I begin by presenting Access and Motivation, which aims to enable participants to gain access and interest in activities of online meaning-making environment.

Procedural process at Step 1: To enable Access and Motivation

Following my lived experience as a PGDE ICT student and teacher educator of the history methods course (see section 1.2), I introduced and explored the idea of embracing Emerging Technologies with the potential to mediate dialogical conversations between the past and the present, with the aim of improving the quality of History Education. In other words, I engaged with Wikis potentially to mediate dialogue between the educator and students in two ways. Firstly, I made a brief presentation of Wikis highlighting their possibilities and challenges in the history pedagogy. Secondly, I encouraged participants to ask questions in case they needed further clarifications. Finally, I requested students who were interested in learning more about Wikis to register their names and attend a

face-to-face orientation workshop scheduled on 4th December, 2013 (2-4pm) at the Computer Laboratory, School Of Education.

6.2 Face-to-face orientation workshop

The purpose of the workshop was to provide participants with an in-depth understanding of Wikis to highlight their potential affordances in History Education. Table 6.1 provides an overview of the workshop procedural activities.

Duration	Session	Workshop activities
2:00- 4:00pm	Introductory remarks	Registration Introductions of participants Aim of workshop Gaining access of the Wiki using desktop computers and mobile phones Participants helping each other access the Wikis Showing online presence by posting a comment under the welcoming remarks section. Participants required to discuss in groups of two and suggest the history topic that could be deliberated upon on the Wiki platform and why. Further clarifications and elaborations on what is expected of the participants and where to obtain technical assistance in case they get stuck.
	Concluding remarks	Each participant was required to make frequent online contributions on the suggested topic. Make a reflection of engaging with the construction of history meanings on the Wiki meaning-making platform.

Table 6. 1: Face-to-face orientation workshop activities

With regard to table 6.1, eight participants expressed interest in exploring the use of Wikis in history pedagogy and thus registered their names, highlighting their year of study. These participants owned internet-enabled mobile phones and were on social media platforms thus improving their likeliness to engage easily with the Wiki. The aims and objectives of the workshop were presented and clarifications on how to gain access to the Wiki were highlighted. Participants were encouraged to access the Wiki using available devices. Gaining access is an essential precondition for learning in any online environment (Salmon et al., 2012: 173). Consequently, four participants successfully gained access and exhibited „online presence“ by posting a comment under the

welcoming remarks section; two who shared a computer requested for assistance from their peers and eventually gained access. The remaining two failed to gain access due to login-password problems and shared with others who had obtained access. One participant volunteered to lead the group and advised others who faced difficulties to embed the Wiki on the Facebook page in order to gain access to it. She attributed this to her usual engagement with Facebook, citing its similarity with the Wiki interface. Mokoena (2013) argues that accessing online systems can be a daunting task at the start and requires on-going support from peers and the educator. Mokoena suggests that technical support needs to be made visible on video clips, guides and helpline contact.

6.2.1 Participants

The demographic details of participants are presented in table 6.2.

Item	Option provided	No. of participants
Gender	Male	7
	Female	1
Year of study	Third year	8

Table 6. 2: Participants' background information at Implementation 1

Following table 6.2, seven out of the eight students who participated in the study were male while only one was female. Establishing the gender status of the participants was driven by the need to establish students' interests and an equitable distribution of the affordances that come with the use of ICT in History Education. The difference of more male than female students could be attributed to the gendered digital divide at Makerere University, since girls and women have reduced levels of ICT access, interest and use than their male counter parts (Nsibirano, 2009). From my point of view, the difference in gender could be attributed to the low interest and morale of using ICTs for pedagogical purposes among female than their male counter parts.

All the participants were pre-service teachers in their third year of study taking history as one of their teaching subjects at the School Of Education, Makerere University. As earlier mentioned, these participants are taught the history methods course as effective strategies on how to teach their future students. Perhaps one of the reasons why some

were interested in constructing history meanings on the Wiki was due to their lived experience as students taking ICT as a principal subject during A levels (Ndidde, Lubega, Babikwa & Baguma, 2009). All pre-service teachers have to take an introductory computer course and a curriculum course in educational technologies during their first and second semesters at the School Of Education (Sebbowa, et al., 2014). It is more likely that volunteer participants had acquired skills and had interest in engaging with ICTs for pedagogical purposes. Maloy, Poirier, Smith, and Edwards, (2010) argue that with emergence of Wikis in business and communications, pre-service and in-service history teachers are considering ways to use these Web 2.0 technologies to engage students in actively interpreting the past to connect to present realities.

6.2.2 Process of identifying the history topic

As a key aspect, I divided participants into two groups and asked them to identify a topic of their interest while providing the rationale for engaging with that topic. Consequently, the first group of participants suggested the topic *Migrations and Settlement of People in Uganda* with a rationale that this was relevant to each of them and that each individual would share the origin of their tribe. The second group chose the topic, *Manifestations of Neocolonialism in Uganda* with the rationale that it was of national and international concern, and that everyone was still facing the positive and negative effects of neocolonialism in Uganda, thus the need to remedy it. Consequently, the two groups unanimously agreed to discuss *Manifestations of Neocolonialism in Uganda* citing that they were all experiencing its manifestations in their present lives and that it was topic covered in the secondary school history curriculum. To this end, Mokoena, (2013) suggests that to enhance motivation and interest on a Wiki or discussion forum, it is important to find out what motivates students and if possible to tie the discussion to what interests students. Similarly, Harris and Girard (2014) advise history teachers to make history lessons relevant for students by linking them to their students' interests. Subsequently, participants were requested to question and respond to each other, make constant postings, share images and pictures on neocolonialism in Uganda afforded in a Wiki meaning-making environment.

6.3 Data collection and analysis procedure

As already highlighted in the introductory section of this chapter, implementation 1 was in the form of a pilot study, tested and tried out as a design solution in the History Education at Makerere University. Thus, participants were required to make reflections by highlighting the possibilities, challenges or lessons learnt through the process of engaging with the construction of history meanings on the Wiki meaning-making environment (see Appendix A). Qualitative data was obtained from written interviews, summarized and documented as lessons learnt (see section 6.9 and section 6.10). Consequently, interview responses were supplemented with observational findings on the Wiki meaning-making environment drawing on each of the formulated design principles (see table 5.1). As earlier mentioned in chapter 4, evaluation and analysis of observational findings was done according to which formulated design principles worked well and the ones which were not successful, both these served as the basis for being re-tested for improvement at the next implementation. Thus, the proceeding section presents observations at step 1.

6.3.1 Step 1 - to enable access and motivation

Observations were an appropriate strategy to provide direct experiences of how participants accessed the Wiki meaning-making environment. I played multiple roles as participant observer, guide and facilitator at step 1. Observational techniques of data collection make it possible for the researcher to obtain first-hand information to complement interview findings (Punch, 2008). Subsequently, step 1 was conducted through three stages. Firstly, I successfully designed a Wiki meaning-making environment and posted a welcoming message to the participants as a way of initiating and inviting them. The rationale for posting a welcoming message was to recruit participants' understanding about why they are learning in this way, as well as what they had to do to take part in the online activities (Salmon, 2002: 2011). Secondly, I sent out invitation emails from the Wiki and requested participants to sign up and create their own accounts. Thirdly, to enhance blended learning, I invited participants for face-to-face

meetings to afford physical socializations, clarifications, and instant feedback (see section 6.2).

According to Kuo, Song, Smith and Franklin (2007), during online learning and face-to-face meetings, it is vital to facilitate both shared interactions between student-educator, student-student, student-content and student-outside resources. Given that Salmon's five-stage model has been greatly criticized for ignoring face-to-face consultation meetings that foster judgment about the readiness of participants to move from one step to another (Moule, 2007), I contacted participants through SMS, emails and invited them for a face-to-face orientation workshop (see, table 6.1). The aligned online activities are demonstrated in figure 6.1.

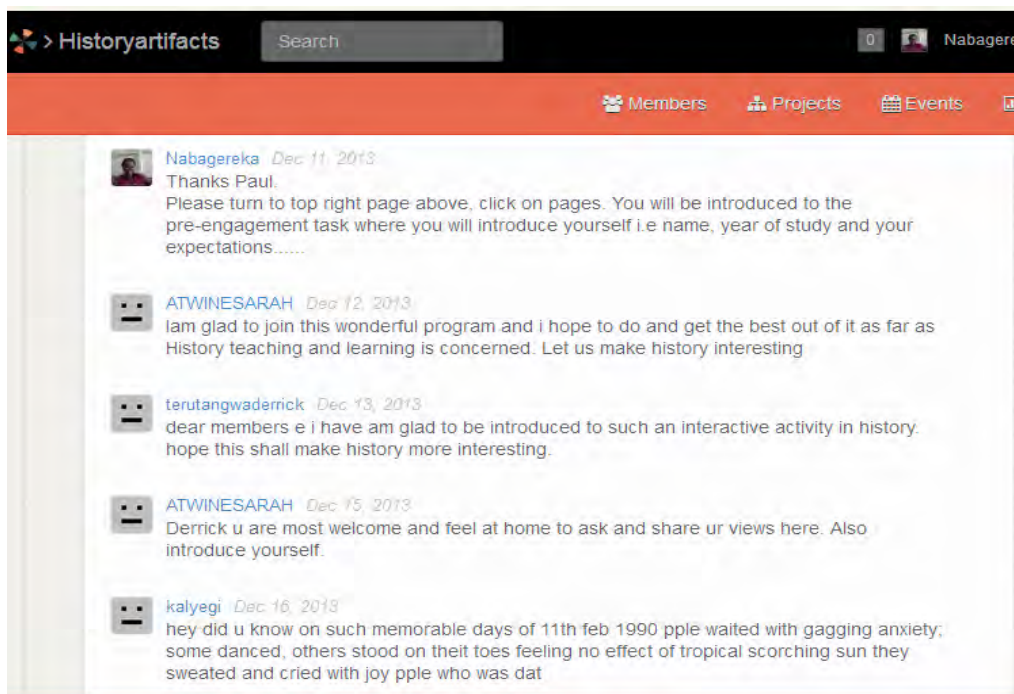


Figure 6. 1: Observational findings at step 1- access and motivation

Following in figure 6.1, one of the participant (Sarah), continuously welcomed her peers on the Wiki. On closer inquiry with her, she revealed having engaged with a similar platform before and was therefore confident at initiating her peers on board. This

suggests that peer-peer and peer-educator interaction are relevant on online learning. Observational findings at step 1, access and motivation, are summarized into educators' activities and participants' activities.

Educator's task /activities	Participants' activities
Created a closed Wikispaces site. Sent invitation emails to participants to enable access to Wikispaces	Responded to the email link in Wikis and joined the site
Used SMS and invited participants to a face-to-face (F2F) orientation meeting about the created site. This was to ensure that all participants saw the invites to the Wikispaces.	Attended the F2F orientation meeting (see table 6.1 above)
Welcomed, motivated and guided participants on where to obtain technical support and further access of the learning environment.	Lead participant continuously welcomed and guided peers on Wiki meaning- making environment. Accessed the Wiki site, engaged with trial posts, images uploads.

Table 6. 3: Participants' activities at step 1- access and motivation

From table 6.2, I could ably conclude that step 1 (to enable access and motivation) was to a large extent successful. Out of the eight participants, seven were able to access the Wiki using various means and avenues such as their mobile phones, desk top computers: through guidance from the educator: face-to-face orientation workshops and peers. From this point of view, the hermeneutic construct of dialogue was evidenced through the educator and participants' activities.

However, although most of the participants gained access to the Wiki, there were some challenges recorded in the written interview. For example, one participant highlighted a need for further guidance on where to obtain technical support (see section 6.9). Technical support has been earmarked as relevant and significant for the success of

online learning (Moule, 2007; Mokoena, 2013). Also, as an educator, I observed that more time and online space should be created on the Wiki to enable participants easily to play with the user interface and acclimatize themselves with online environment. Following this evaluation and analysis, a second implementation/iteration was carried out to readjust and refine step 1 as deemed relevant to improve the quality of learning History Education (see chapter 7). The next step 2 was to promote online socialization

6.3.2 Step 2: to promote online socialization

The substantive characteristics of step 2 were to promote online socialization including providing online identities, collaboration and attempting the authentic task (Van den Akker, Gravemeijer, Mc Kenney, & Nieveen, 2006). I followed two systematic steps that were deemed important in building online confidence and ease of interaction. Firstly, I requested the participants to contribute to the pre-engagement task by introducing themselves by posting their names and year of study (see figure 6.2). Online introductions were deemed important to build solid online identities, networks and friendships that would later support collaborative learning (Salmon, et al , 2010; Salmon, 2013). Secondly, I requested them to click on the pages link and share their preconceptions about history teaching in Uganda, while commenting and responding to each other's posts (see figure 6.3). Correspondingly, Mokoena (2013) argues that an educator must be sure to provide students with directions for online discussions that are simple, to the point that they are guided on what activity follows the other.

While participants made posts on the pre-engagement task by introducing themselves with the engagement on a Wiki (see Appendix C), some did not disclose their online identities, perhaps because online participation was voluntary. Mokoena (2013) argues that online interactions that do not attach grades normally face challenges in getting students to participate actively in the discussions and debates. Mokoena continues that some will not join at all and others may participate but give shallow and short responses instead of researching and providing in-depth reflective responses. A screenshot of the online socialization pre-engagement task is presented in figure 6.2.

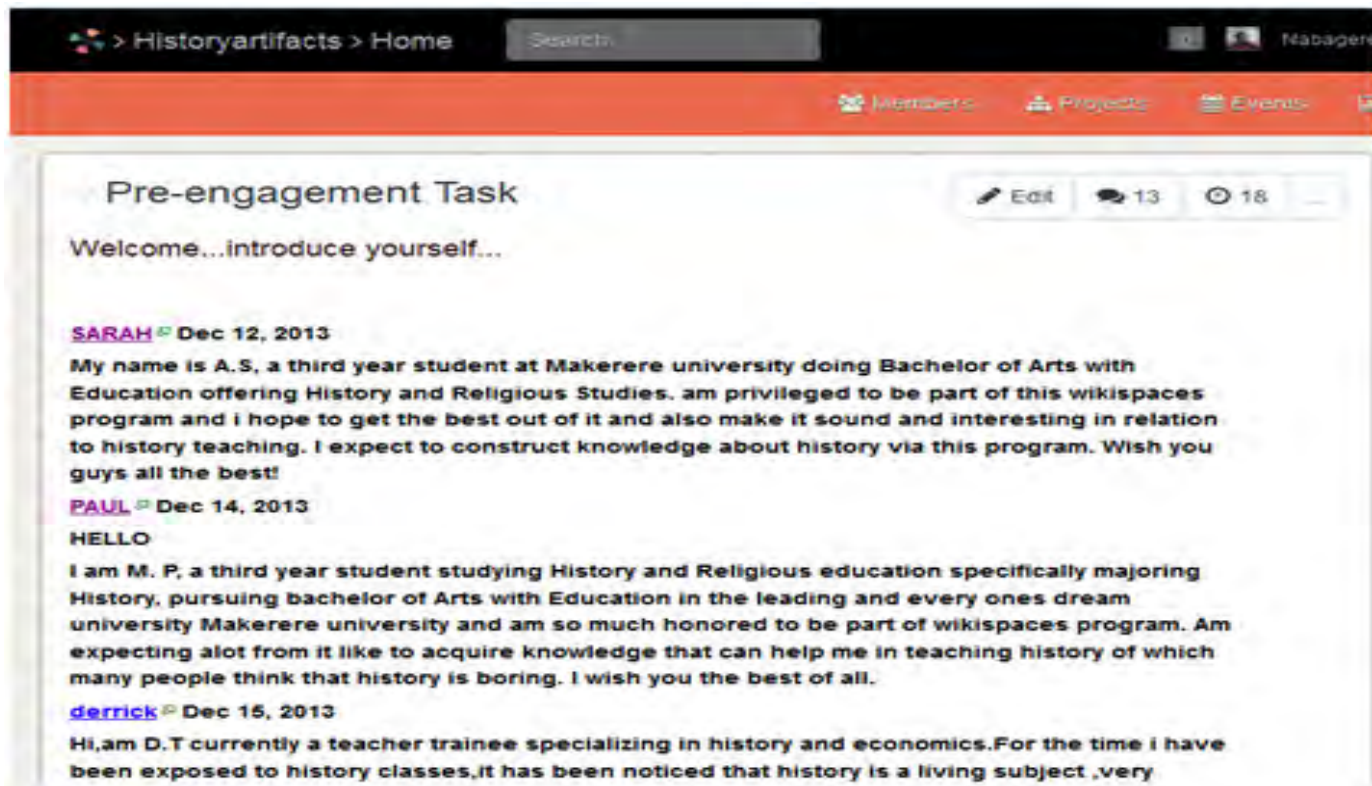


Figure 6. 2: Observational findings at step 2- Pre-engagement Task

In relation to the pre-engagement task, participants were further tasked to share their pre-conceptions about history teaching in Uganda (see, figure 6:3). This step was relevant because it was viewed as an attempt to understand how personal feelings, historical, social background influences and experiences affected the research and how such understanding was integrated in the study (Fleming et al., 2003). This also implies that by obtaining participants' pre-conceptions about history teaching, more online interactions and deeper understanding of the past would be enhanced.

To this end, Van Manen (1990) and Gadamer (2004) argue that researchers must constantly ensure that they focus actively on changes to their pre-understanding as they dialogue with the text and also exhibit awareness of their personal prejudices and biases. In view of this argument, before I obtained participants' responses about the underlying task, I shared my personal ideas, attitudes and pre-understanding of history teaching in Uganda. This enabled me develop a clear understanding of my personal pre-

understanding of the pedagogical process prior to my engagement with the participants' ideas.

6.3.3 Personal pre-understanding about history teaching at implementation 1

My personal pre-understanding (preconceptions) of history teaching in Uganda was captured in a reflective blog entry (see <http://tinyurl.com/hok74zh>). Gadamer (1989) and Turner (2003) advocated for awareness of one's own bias, so that the texts (participants' views) could present themselves in all their otherness, thus asserting their own truths against one's fore projections. My personal reflections were based on my lived experience as a student, teacher and teacher educator as follows:

- Given a detailed history syllabus in Uganda, most teachers focus on dispensing and transmission content knowledge which leads to memorization of facts, geared to passing examinations.
- I strongly believe that the authoritarian transfer of knowledge reminiscent in most history lessons in Uganda today was inherited from the colonial education system (see chapter 2). This is reflected when the teacher dispenses and transmits history content knowledge with students passively absorbing and receiving what is taught. These behaviorist teaching approaches such as lectures and didactic storytelling have been passed on from one generation to another. This seems to align with the view that, most history teachers teach the way they were taught (Anderson, Standerford & Imdieke, 2010). These teaching approaches do not encourage students to think historically and interpret the past based on multiple sources of history evidence such as textbooks, images, and pictures as representations from the past. Teacher-dominated approaches also cannot help the learner reflect on the past to solve real-life problems (no link between theory and practice).
- I concluded my reflection by providing a suggestion for history teaching to integrate ET with dialogic learner-centered methods of teaching, like group discussions, role play, and inquiry-based learning with an aim of making learning interactive and interesting to accommodate today's student. This recommendation

was perhaps an inherited bias from my study background having undertaken a PGDE ICT in Education course (see section, 1.2).

Having exhibited an awareness of my personal pre-understandings about history teaching as highlighted above, I used this knowledge and experience with me while observing participants' activities on the Wiki meaning-making environment. Moreover, I was always willing and open to learning something new about history teaching as seen through the participants' eyes as I continuously reflected on my own pre-understandings. Therefore, following the hermeneutic cycle-driven analysis of the part (my own pre-understanding) and the whole (participants' preconceptions shared on the Wiki), my re-understanding and refinement of the study problem improved greatly.

Figure 6.3 shows an excerpt of participants' preconceptions about history teaching.

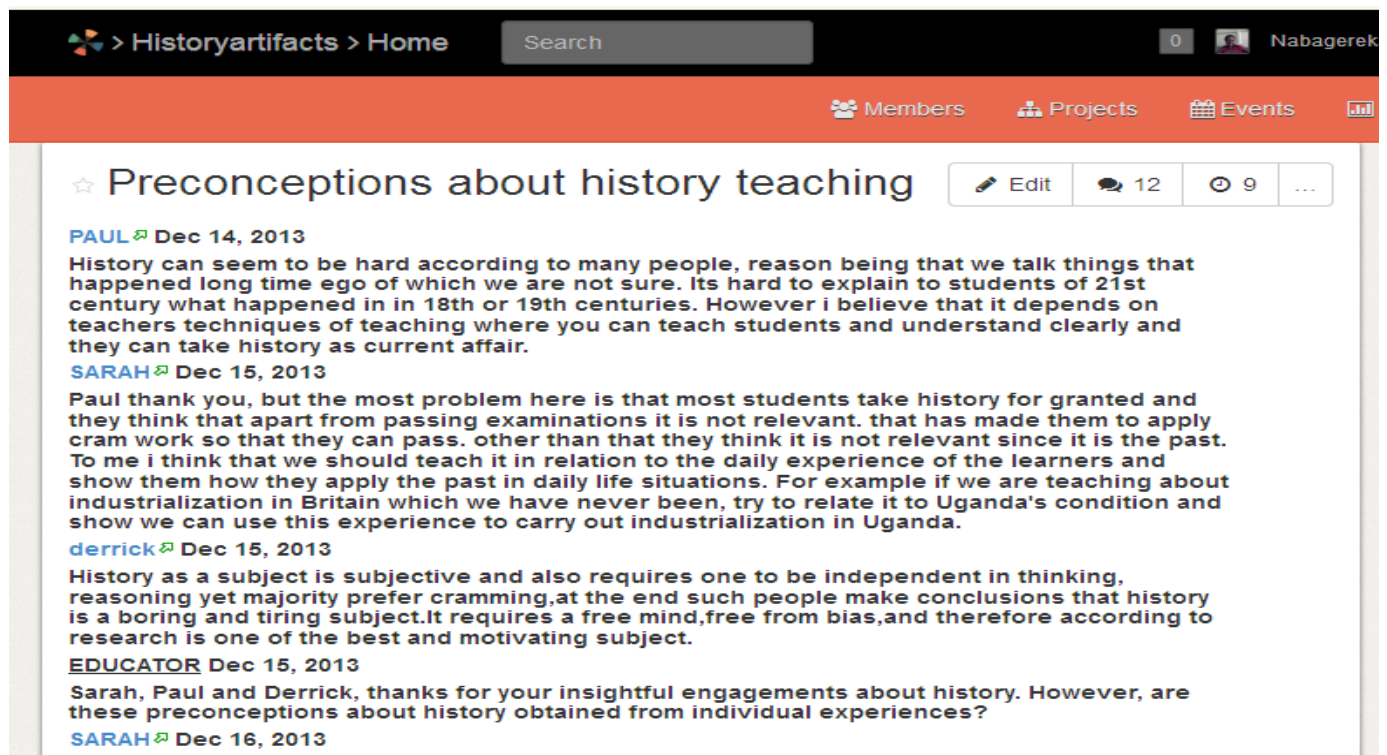


Figure 6. 3: Observational findings at step 2-preconceptions about history teaching

Following figure 6.3 above, the salient comments reflected in the excerpt from one student who provided useful insights on the preconceptions of teaching history:

„Most students take history for granted and they think that apart from passing examinations, it is not relevant. This has made them to apply cram work so that they can pass. To me, I think that we should teach it relation to the daily experiences of the learners“ (C11).

Following the hermeneutic cycle-driven analysis of the participants’ words and the whole interpretation of the sentiment, C11 believed that „students cram history“ content with a focus on „passing examinations.“ The student further suggested a need to adjust the teaching techniques with history to be taught „in relation to the learners’ daily experiences“. This student’s views were close to my own preconception of history meanings, which were neither unique nor original (See section 6.3.3). For example, the aspect of memorization and cramming of history content geared to passing examinations seems to be reminiscent in history teaching in Uganda. History Education should embrace the use of learner-centered methods that will facilitate democratization in learning (Burns, 2014), while exploring the affordances of ICT tools in learning history (Haydn, 2011). In my view, such suggestions provide chances of breaking the status quo of predominantly using teacher-dominated methods while embracing learner-centered methods in History Education.

Another student argued that:

„History can seem to be hard according to many people reason being that we talk about things of long time ago of which we are not sure. It is hard to explain to students of the 21st century what happened in the 18th or 19th centuries. However, I believe that it depends on the teachers’ techniques of teaching“ (C10).

The student indicated that „history seems to be hard to many people“ simply because students were not part and parcel of the making of that history. He used the phrase, „things of long time ago of which they were not sure of.“ The statement highlights the

role of the teacher in the pedagogical process. This analysis suggests that since the study of the history predominantly involves events from past (18th and 19th centuries) that are detached from the contemporary situation (21st century), history teachers could engage students in the active participation of doing history while relying on evidence. „Doing history“ involves interpreting the past using the tools or artifacts available in the present such as visual pictures and images, historical archives, newspapers museums, and ETs among others. Thus, active participation in the study of history is important in attaching relevancy to the study of the past while also making today’s students feel part of history.

However, given the statements in figure 6.3, I noted a difference in my own preconceptions about teaching history and the participants’ understanding. For example, while one student indicated that history was taken for granted, another remarked that he found it hard to explain the past in the present situation. These sentiments therefore suggested a new understanding about history teaching viewed from the participants’ lens, which contributed to a deeper understanding and refinement of the research problem. To this end, Gadamer argues that it is important to discover how personal preconceptions and listening to others’ views contribute to our understanding or misunderstanding of a text (Gadamer, 1975). Therefore the hermeneutic cycle-driven analytical perceptive employed in this study is relevant to catering for an added layer of interpretation to make meaning of the phenomena in a way that is credible and sustains truthfulness to the participants and their interactions (Ajjawi & Higgs, 2007).

The above qualitative sentiments are further corroborated with pedagogical activities at Step 2 summarized in table 6.4.

Educator’s tasks /activities	Participants’ activities
Asked participants to introduce themselves by indicating their name and year of study	Five participants introduced themselves by indicating name, year of study while the remaining three did not write anything at introductions
Guided the participants to click on the pages link and access the pre-engagement task	Five shared their preconceptions about the teaching of history in Uganda

Asked them to share thoughts about the teaching of history in Uganda	Seven participants shared their thinking about history teaching in Uganda and responded to each other's posts
Probed participants' thinking by asking questions in relation to the responses provided on their preconception about teaching history in Uganda.	Two participants responded to the task

Table 6. 4: Participants' activities at step 2-online socialization

Data from table 6.4 suggests that step 2 - to promote online socialization - was achieved to a larger extent because participants were able to reveal their online identities, and hence provided a basis for further information exchange (Salmon, 2002). Moreover, the historical hermeneutic notion of dialogue among the participants was evident at this step. To a larger extent, the focus of online socialization among participants was achieved, yet the lesser extent should not be ignored. For example, it was earlier observed that some participants (three out of eight) did not engage with sharing their online identities. While I earlier shared the view that it could have been due to the voluntary participation on the Wiki meaning-making environment, perhaps another explanation could be that participants were not motivated to participate online. Therefore this observation served as a basis to inform the refinement of online socialization at implementation 2 in chapter 7. DBR framework followed in this thesis calls for developing and refining the design of a learning environment and curriculum reflected in a theoretically informed design principle, reflecting what worked well and what was not successful to inform further iterative cycles (Reeves, 2006; Clark, 2013).

6.3.4 Step 3: To support information exchange

Step 3 was characterized by activities, exchange of historical texts, pictures and images, open questioning and answering. Such characteristics or activities were to be evident on the Wiki meaning-making environment. Therefore, in order to achieve such activities, I engaged with online observations as an appropriate strategy as participants can be anywhere in the world, obtained online presence and first-hand information on how participants engaged with the topic, *Manifestations of Neocolonialism in Uganda*, on the Wiki meaning-making platform (see appendix C).

Subsequently, viewed through online observations, participants made online contributions on the concept of neocolonialism in Uganda (see, example in figure 6.4), while others shared pictures exhibiting their understanding of the *Manifestations of Neocolonialism in Uganda* (see figure 6.5). Following the participants' written reflections, this was explained by the limited time and duration given to execute this task. Participants also indicated that they were not given enough time to play with the Wiki environment and learn how to upload pictures.

Consequently, peers provided further responses and clarifications on neocolonialism with supplementary comments from the educator. Thus the hermeneutic notion of historicity, dialogue through asking and answering questions between the educator and students was demonstrated exhibiting a learner-centered pedagogy at this stage (see table 5.1). Also, pictures shared among participants were a useful resource and provided feedback in answering questions that resulted in participants' conceptualization of neocolonialism. The argument developed in this study is that the process of attaching meaning to the past through sharing of pictures and photographs provides a form of innovative approaches to learning and reconstructing history through the lens of the present. Thus, to substantiate the above statements, online discussions on neocolonialism in Uganda are exhibited in figures 6.4 and 6.5.

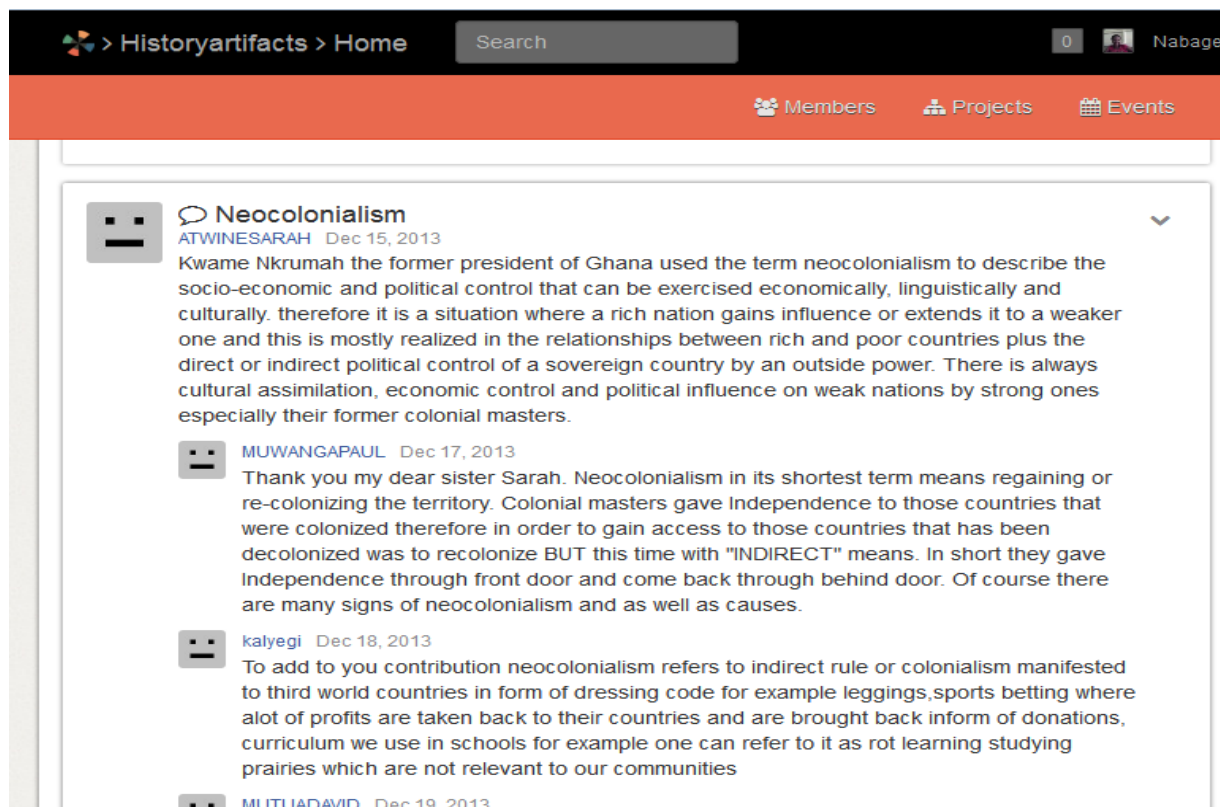


Figure 6. 4: Observational findings at step 3 - Online discussions on neocolonialism

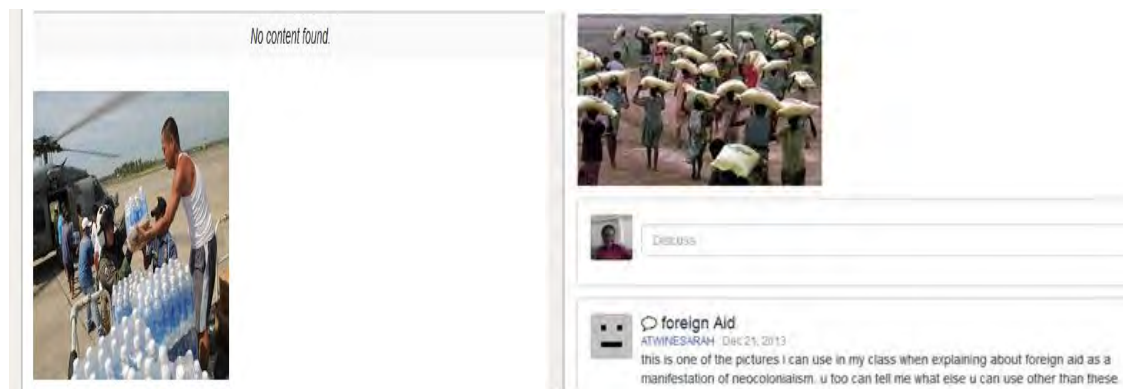


Figure 6. 5: Observational findings at step 3-Information exchange using images

The related pedagogical activities between the educator/researcher and participants are summarized in table 6.4.

Educator's task /activities	Participants' activities
Requested participants to post concepts, pictures and different <i>Manifestations of Neocolonialism in Uganda</i>	Defined neocolonialism and uploaded images illustrating <i>Manifestations of Neocolonialism in Uganda</i>
Guided dialogue through asking questions of what each post meant to the participant	Questioned and answered and attached meaning to the artifacts posted Fusion of horizons between the past and the present experiences was exhibited at this step

Table 6. 5: Participants' activities at step 3-Information Exchange

Following the observational findings (see figures 6.4 and 6.5, and table 6.4) showing the different activities between the educator and the participants, I (educator/researcher) suggest that the historical hermeneutics constructs of historicity, fusion of horizon and dialogue emerged throughout step 3 (see table 5.1). Given that participants interacted with each other and exchanged ideas about the concept of neocolonialism in Uganda, the formulated design principle to support information exchange was to a larger extent successful. To this end, Salmon (2002) argues that, information exchange is deemed successful when participants learn how to search and exchange information productively through e-tivities. However, as shown earlier, it was to a lesser extent successful in there were limited uploaded pictures and images on *Manifestations of Neocolonialism in Uganda*. Hence this was documented under lessons learnt and recommendations (see sections 6.8 and 6.9).

6.3.5 Steps 4 & 5: promote knowledge construction and foster development

Following the successful implementation of steps 1, 2 and 3 reflected in the formulated design principles presented above, my expectation was that participants would begin to work together on the active co-construction of knowledge through dialogical interpretation of history meanings at the steps 4 and 5, to promote knowledge construction and to foster development respectively. However, this level of engagement was not reached. This paucity could be explained as a challenging move from information exchange, to knowledge construction, onto development that required a

longer period of time for the participants to become comfortable with being open-minded, sharing challenging ideas within their group, as well as being critically reflective of their own views and positions. Given that the DBR approach employed in this research places emphasis on iterative cycles of re-testing and refinement of design principles, this was not effectively implemented (Herrington et al., 2009). The formulated design principle of promoting knowledge construction and fostering development would be executed and re-tested at implementation 2 (see, chapter 7).

Following an evaluation of the implementation of the first design solution and how Salmon's five-stage model operationalized activities on the Wiki meaning-making environment, the position I developed throughout step 1-3 is that evidence of increasing dialogical conversations between the past and the present, and multiple perspectives and views is shared between the educator and students. Subsequently, the historical hermeneutic constructs, historicity, dialogue, fusion of horizon, pre-understanding of prejudices and biases illuminated in chapter 2 emerged throughout the above three steps. Therefore, I argue that theoretical underpinnings informed part of the first implementation to design solution, with an aim of answering the questions and hence finding a solution to address thesis problem (see chapters 1 and 2). It is worth noting that the qualitative data findings presented in the current chapter 6 highlighted as pilot study were helpful in informing the refinement and readjustment that formed the basis for second implementation of the design solution (see chapter 7).

6.9 Lessons learnt from the first implementation of design solution 1

- To enable access and motivation was to a larger extent successful but the lesser extent can be explained by the lack of space and time to learn how to play around with the Wiki interface at this level. For example, one participant suggested that more time, space and technical support (user guides) should be available at the underlying step to provide easy access and motivation, which would foster an appropriate orientation for learning history on the platform.

- To promote online socialization was to a larger extent successful but the lesser extent can be attributed to the few contributions and responses made to the Wiki meaning-making environment task of sharing preconceptions about history meanings. For example, although five out of the eight participants introduced themselves through sharing their names and year of study, only four engaged further with the task of sharing their preconceptions about history meanings.
- To support Information Exchange was partly successful as an engagement with the concept of neocolonialism was exhibited as presented above. However, only two of the eight participants shared pictures and photos of the *Manifestations of Neocolonialism in Uganda*.
- Promoting knowledge construction and fostering development were not successful perhaps due to the limited time and duration of implementation 1 constraint, among others.

6.10 Recommendations from the first implementation of the design solution

- At Implementation 2, the five underlying online steps, also known as formulated design principles, were reworked, customized and renamed to capture historical hermeneutics theoretical constructs and history pedagogy mediated on the Wiki meaning-making environment, with a key focus of answering the research questions in this research.
- An online space on the Wiki meaning-making environment was created to enable participants' access and play around with the user interface while participating in uploading history pictures, videos and audios. The rationale behind this action was to support the study thesis of using a Wiki to make the learning of history interesting, fun and relevant to the contemporary students as opposed to the study problem (see chapters 1 and 2).
- Given that Salmon's five-stage online model has been criticized for lacking a face to face physical space to blend the online learning (Wright, 2014), face-to-face training meetings were more evident at implementation 2, with the rationale of facilitating social and academic interactions between the educator-student, student-student and student-content.

- A move from Wikispaces to PBWiki was guided by affordance analysis (Bower, 2008). The position developed here was that the latter provided much more potential to enable participative writing and interpretation of history meanings viewed as crucial to the thesis (see table 7.2).
- Implementation 2 was effected within a longer period, over one year. This was done to give the researcher and participants enough time to engage in the dialogical construction of history meanings using the Wiki meaning-making environment.
- To suit the DBR approach employed in this study (McKenney & Reeves, 2012), different cohorts of participants engaged with Implementation 2. The rationality for this difference was to ensure that the thesis conclusions adequately represented the entire range of variation that could be generalized in similar contexts at higher education institutions (Carliner & Shank, 2008).

6.11 Chapter summary

This chapter engaged with formulated design principles premised on Salmon's five-stage model. Salmon's model was used as the premise to operationalize the activities of the Wiki meaning-making environment. An intervention to test the formulated design principles in practice was employed drawing on interviews and observations on the Wiki. Consequently, findings from each of the formulated design principle were subjected to what worked and what did not work at each principle. The subsequent results revealed that the steps served as the basis for implementation 2. The chapter concluded by documenting the lessons learnt and recommendations to inform the second implementation of the design solution in chapter 7.

CHAPTER 7: SECOND IMPLEMENTATION OF THE DESIGN SOLUTION

7.0 Chapter Overview

This chapter serves as a continuation of the DBR phase 3 captured under iterative cycles of testing and refinement of solutions in practice and it follows the development of the first implementation captured in chapter 6. The chapter begins by reflecting on the changes in name or transition of formulated design principles to revised design principles. A full description of the revised design principles is given, coupled with redesigning and refining the design solution. Data collection methods and analysis were highly influenced by the hermeneutic cycle driven analysis, therefore findings to each of the revised principles were presented aligned to providing answers to the research questions. The chapter concludes by providing a recommendation that forms the basis for third iterative cycle implemented in chapter 8.

7.1 Transition between formulated and design principles

Following the recommendation to customize the formulated design principles at implementation 1, table 7.1 below illuminates the transition changes (naming) from formulated to revised design principles.

Formulated Design principle	Revised Design Principle
To access and motivation	To access and play
To promote online socialization	To encourage online introduction
To support information exchange	To share preconceptions about History Education
To promote knowledge construction	To make shared interpretations about history meanings
To foster development	To support open questioning and clarifications
	To support reflections and framing history

Table 7. 1: Transition changes from formulated to revised design principles

As shown in table 7.1, the changing of the names as reflected in the revised design principles were customized to the History Education context. This was significant for

two reasons. Firstly, it was driven by the need to accommodate the historical hermeneutics philosophy, with a rationale of providing a theoretical language envisaged to address the thesis problem identified in chapters 1 and 2. Secondly, it was guided by the DBR focus of production and refinement of design principles customized to suit authentic localized contexts and objectives (Clark, 2013). Correspondingly, the refinement in naming to reflect revised design principles forms part of the DBR phase three illuminated as the iterative cycles of testing and refinement of solutions in practices (Reeves, 2006). Therefore, in the proceeding section, I provide description of the revised design principles customized to History Education context.

7.2 Mapping table 7.1: unpacking revised design principles

7.2.1 Step 1: to access and play

My argument for access and play was to provide ongoing support to participants to gain access and also stay motivated online (Salmon, 2002). Thus, to motivate and arouse participants' interest, I created a play page on the Hermwiki site (see <http://tinyurl.com/ztu5b3b>) that had no structured ground rules, where participants could obtain access and learn how to use the Wiki environment through trial and error (see figure 7.2). This study conceptualized play as an open, free practice for gaining confidence in the Wikis intervention without a set ground rules and procedures to follow (Fairfield, 2015). While the historical hermeneutics philosophy conceives play as an experience and art of participating in dialogue which is focused on achieving understanding (Kogler, 1996), I realized that, to access and play, was closely aligned to my thesis problem. The study problem was partly that students found learning history boring and irrelevant to their current situation (see section 1.1). Borrowing the historical hermeneutic understanding of play highlighted by Kogler, I argue that the dominant behaviorist approaches reminiscent in History Education limit the art of dialogical conversations about the past (participation through play). In the context of this study, this statement suggests that one way of connecting to students' current situations is to enable access to and learn about the past informally through play on the Hermwiki site.

Following this point of view, the subsequent refinement of the research problem, proposing solutions, methods and design principles is visible in the current research (Reeves, 2006).

Given the historical hermeneutics philosophy that it is precisely encountering and being open to the unfamiliar that is necessary to begin a process of broadening one understands (Gadamer, 2004), participants were challenged and presented with more opportunities to develop sophisticated ways of thinking about the past by working through and encountering unfamiliar aspects of the Wiki intervention. Moreover, my role as an educator was to scaffold, guide and encourage participants to seek clarifications, ask questions and respond to each other's posts, and make comments mediated by the Hermwiki environment. Consequently, viewed from the perspective of learning history, going through the process of access and play, participants would be orientated to finding learning fun, as they were free to ask any questions about the past and get responses in an informal structure other than the design constraints imposed by the Wiki meaning making environment. Having given a description of the revised principle, „to access and play“: the next step was to promote online introductions.

7.2.2 Step 2: to promote online introductions

My argument for promoting online introductions was driven by the desire for participants to introduce themselves and identify with each other on the Hermwiki site. This was achieved through sharing names, year of study and making posts/images of something about their culture/family history (see figure 7.3). The rationale for sharing their cultures was important in making them feel part of their own history, family and tradition. To this end, Seixas, (1996) argues that family history gives students a chance to learn about the past in a way that is meaningful to them as it connects to their lives. Comparably, Gadamer asserts that understanding of tradition is achieved through obtaining family history (Abadía, 2011).

In view of these statements, it can be inferred that interpretation and understanding history meanings is closely linked to an awareness of ones' own family and culture.

Therefore, in alignment with a need to promote online introductions, I created an additional link for participants to share pictures and images of their families and cultures. This additional link was named „Sharing Pictures, Images, Audios and Videos“ (see figure 7.1). The rationality for sharing visual historical artifacts was to encourage students to participate in attaching interpretation to the past mediated by ET as contemporary tools visible in their present. In line with this view, Stockdill and Moje (2013) observed that curricula and schooling that use students’ interests and experience as a launch pad for learning Social Studies concepts and skills have greater potential for promoting critical inquiry and deeper learning.

The proceeding section describes step 3, to share preconceptions about History Education.

7.2.3 Step 3: to share preconceptions about History Education

The rationale for sharing preconceptions about History Education was to place emphasis on exhibiting one’s awareness of the personal Prejudices & Biases (P&Bs) in the process of making history interpretations (see figure 7.5). In support of this view, historical hermeneutics agitates for awareness of one’s own P&BS in order to obtain true understanding (Gadamer, 1960).

This statement suggests that we ought to be aware of P&Bs that are shaped by our contexts, generations and social cultures in the process of achieving true historical understanding. Following this background, I argue that if the educator/researcher and participants successfully shared their personal preconceptions about History Education on the Hermwiki site, collaborative understanding would be achieved. This was a significant step in yielding to collaborative prejudices and biases and thus helped in redefining and deeper understanding of contrasting history events at hand.

That said, the next section describes step 4.

7.2.4 Step 4: to make shared interpretations of history meanings.

To make shared interpretations of history meanings was created with a rationale of enabling collaborative construction and interpretations of history meanings. Importantly, this principle is aligned to the link of exchanging history artifacts through pictures, images and audios. Thus, this step was achieved through reading and consulting multiple sources of history information, such as journal articles, newspaper extracts, video clips, pictures and images about the suggested topic under study (see figure 7.4). Participants would analyze all the information from the historical sources, post their interpretations and receive comments, questions and responses from their peers with supplements from the educator mediated by the Wiki meaning-making environment. Thus step 4 would be successfully accomplished if participants engaged in dialogic constructions of history meanings to reach understandings afforded by the Wiki meaning-making environment.

Hence, table 7.1, „to foster development“ was divided into two revised principles: step 5 was „to support open questioning and clarifications“ and step 6 was „to support reflections and framing history“ and these are discussed below.

7.2.5 Step 5: to support open questioning and clarifications

My argument for creating step 5 - „to support open questioning & clarifications“ - was to engage participants in an open inquiry, comment and respond to each other's posts while receiving supplements and clarification from the educator/researcher. This was envisaged to enhance the collective interpretation and understanding of history meanings hosted by the Wiki meaning-making environment. Thus, questioning and responses were intended to help participants see history as issues still being inquired and deliberated on by historians, rather than true facts that could not be revised (Maloy, Poirier & Smith, 2010). This view is in agreement with the historical hermeneutics focus on horizons of understanding through open-ended questioning and answering between the past and present, rather than transmission to passive audiences (Porter & Robinson, 2011) as reflected in the sentiments below.

„To understand is often a matter of negotiating a tentative truth or belief; without opening ourselves by asking questions, we cannot have new experiences.“
(Gadamer, 1975: 97).

The statement suggests that continuously asking questions related to when, where, and how focused on validating the past is synonymous with the teaching of history basing on available evidence. Accordingly, Stockdill and Moje, (2013) observed that paying attention to questions re-positions students as active and empowered participants in their own education and, if engaged by educator, might shift Social Studies learning towards deeper processes of inquiry. Stockdill and Moje further assert that education that views students as capable of generating questions is worth investing in and the further take up of study and analysis of questions opens the door for deeper critical thinking and learning. In view of these statements, step 5 was created to elicit open-ended questioning and clarification between the past and the present, albeit the transmissive approach to history pedagogy.

Having said that, another link labeled, „classroom photos“ was created with an argument that photos would initiate a sense of unity and visual identity among the participants (see figure 7.1). This link was envisaged to bring about a virtual visually engaging relationship among participants to easily identify each other while constructing history meanings.

7.2.6 Step 6: to support reflections and framing history

The position I developed at step 6 was guided by the need to relate the past to the present with participants reflecting on the lessons learnt in the process, constructing history meanings mediated by the Wiki. Monte-Santo and Budano (2013) argue that, at a higher order thinking level, students ought to conceptualize, arrange history illustrate significance, connections and interrelationships. This suggests that history teachers ought to highlight continuously the relevancy of teaching history to the current generation of students. Similarly, students draw examples from their lived experiences as pre-service teachers to share their experience of the appropriate teaching methods used to teach





History Education has a potential to be transformed from a didactic one way communication procedure to a shared conversation between the past and the present to shape the future. The past becomes relevant to the present as soon as different interpretations underlying arguments and continuous meanings/understandings are attached to it at a particular point in time. This site creates excitement among participants(21st century History Education students) as it enables them actively participate in shared/group interpretations of the past in relation to the present to focus the future.

Please click on the links below to navigate your way through the site.

- [To Access and play](#)
- [To encourage online introductions](#)
- [Sharing pictures, images, audios, videos](#)
- [To share preconceptions about History Education](#)
- [To exchange history artifacts](#)
- [To make shared interpretations of history meanings](#)
- [To support reflections and framing history](#)
- [To support open questioning and clarifications](#)
- [Classroom photos](#)

NB; Please use [To Access and play](#) above to play and learn how to use this wiki site.

Following figure 7.1 (see, <http://tinyurl.com/ztu5b3b>) revised principles were systematically refined and re-named. This view is in support of the DBR methodology postulating that, after the first implementation of the solution, the learning environment is refined and then implemented again (Reeves et al., 2005). This is further substantiated in section 7.3.1.

7.3.1 Re-designing & refining Wiki meaning-making environment

The PBwiki type interface labeled „Hermwiki“ was used as an alternative to Wikispaces earlier introduced in chapter 6. My argument for engaging with PBWiki type was that it provided multiple affordances of enabling participative writing and editing content, pictures, and videos (Bower, 2008) focused on improving the quality of History Education. This is further illustrated in table 7. 2.

PBWiki	Wikispaces
Editing privileges available to afford collaborative adding and editing historicity	Limited editing with no option of collaboratively adding, editing historicity
Enables participative group writing of history as it unfolds	Participative writing of history as a group is a challenge
Contains visible navigation links with a printable version to work with content offline	Navigation links are not easily visible with no printable version to view content offline.

Table 7. 2: Potential affordances PBWiki and Wikispaces (modified from Bower, 2008)

The PBwiki was preferred as an alternative to the Wikispaces, which offers no printable version to work with content offline. Consequently, as a first step, I set up a PBwiki site and read through the user guide and listened to videos to gain a real understanding of how the site worked. Secondly, I searched for other PBWiki sites that had been utilized for pedagogical purposes to get a sense of how this site worked. Thirdly, I read literature on the possibilities and challenges of engaging with this particular Wiki type. The fourth step was to sign up with a PBwiki site, customize it and give it a name that closely aligned with my theory of historical hermeneutics (Gadamer, 1975). Thus, I named it the Hermwiki platform in reflection of the hermeneutics theory and the Wiki meaning-making environment. For the purposes of uniformity and consistency throughout this research, the term „Hermwiki“ was used synonymously with the generic name Wiki meaning-making environment. Having designed the Hermwiki, I thought of capturing written texts, pictures and animations that would appear on the homepage of my Hermwiki platform, seeing that today’s students are more likely to connect to Wiki pages that feature carefully chosen combinations of written text and multimedia sources

(Maloy, Poirier and Smith 2010: 77). I designed texts and pictures that would be visually engaging and would attract students' attention while also reflecting History Education. Hence, the pictures and animations selected demonstrated the oscillation between the traditional ways of learning history (storytelling/lecture) blended with technology-enhanced learning (see screenshot in figure 7.1). I also thought about a captivating and motivating introduction spelled out in green that would welcome participants to the Hermwiki platform. To this end, Salmon (2013) suggests that interest is aroused and participants are motivated to stay online if e-moderators or teachers design interesting online introductions. Having created and designed the Hermwiki platform, my next step was to publicize the Hermwiki as a meaning-making environment that would enhance collaborative interpretations of history meanings to different student groups.

As earlier mentioned, I facilitate the history methods course to students in their second and third years of study and to those taking PGDE. My aim was to introduce the Hermwiki learning environment to each cohort so that those who were voluntarily recruited would transfer this knowledge and skills to their future students. Firstly, I introduced the Hermwiki to third-year participants (2014 entrants) enrolled in a Bachelor of Arts with Education Degree at Makerere University. As earlier highlighted in chapter 2, the history methods course places emphasis on harnessing methods, techniques and innovations adaptive to 21st century learning to enhance the quality of learning history. Hence, my argument was to utilize the potential affordances of Wikis in attaching meaning to history. Consequently, I informed each cohort that recruitment to join the Hermwiki platform was to be conducted voluntarily on a free entry and exit basis. In other words, participants were free to join the platform and also free to leave at will. Also, I requested those who were willing to join the Hermwiki platform to register their names, emails and mobile contacts which would be used for strictly research purposes. Those who were interested were requested to attend a face-to-face orientation workshop scheduled on 2 November 2014 at the Computer Laboratory, School Of Education. The final step was to create accounts for those who had registered their emails (participants) and I sent them invitations to join the Hermwiki platform.

7.3.2 Participants

These cohorts of participants were pre-service teachers who took history as one of their teaching subjects. Following the lessons learnt in chapter 6, the small number of participants (eight) may have limited the findings, as some students did not ably engage in collaborative construction of history meanings. To that end, Herrington & Reeves, (2011) argue that at the second implementation a different group of students is often used considering the different years of study and the different times at which the course runs. Subsequently, 20 participants voluntarily joined the Hermwiki platform comprising of three PGDE students, 11 second-year students and six third-year students (see table 7.3). Thus, using diverse groups in DBR, adds value and enables a critical analysis of the history content materials, as these can identify issues with the design prior to the final design principles (Clark, 2013). These participants also varied in gender with fourteen males and six females. In correspondence with the first implementation of design solution, the recorded number of female participants was less than the male (see table 6.2). As earlier argued, the difference in gender could be the low interest and morale of using ETs for pedagogical purposes among female participants who thus needed to be motivated. Accordingly, Akker et al., (2013) argues that DBR methodology involves active participation of a heterogeneous nature of participants at the various stages and activities of the research. Thus Akker et al, continue to assert that, engaging with diverse participants improves the chance for the intervention to become relevant and practical for the educational context; this also ensures that the conclusions adequately represent the entire range of variation.

Therefore, selection of the participants was based on the following reasons: the first reason was that those undertaking history could engage at a higher thinking level, comprehend and debate various history concepts and issues aligned to the pedagogic context. The second aspect was fixed from the pragmatic and technical perspective, in that this research needed someone who had an interest in using Internet-enabled devices and mobile phones leading to their more likely use of social media tools such as Facebook, Twitter and WhatsApp (Sebbowa et al, 2015). Considering these reasons, volunteered participants could purposively engage with constructing and interpreting

history on the Hermwiki platform. That said, as highlighted above, participants were invited for the face-to-face orientation workshop on 2nd November 2014.

7.3.3 Face-to-face orientation workshop

The face-to-face orientation workshop was for participants in the third year of study. Out of the History Education class of over 100 third year students, only 20 volunteer participants turned up for a face-to-face training workshop at the computer lab at School Of Education. Volunteered participants exhibited high interest in using ETs in history pedagogy; they owned internet-enabled devices and were on the social media. Since the computer laboratory had only ten functional computers, participants shared the computers amongst themselves. Of the 20 participants, 14 signed into the Hermwiki site. While six had problems with signing in, as the system rejected their passwords, I created other accounts for them and they eventually signed in. To this end, Moule (2007) and Mokoena (2013) advise online facilitators and teachers that technical guidance is always needed during online learning, as access has often proven to be a great challenge. I observed student- student interactions during the workshop as peers kept on asking each other questions about the Hermwiki, and also consulted the educator. For further guidance, I requested the participants to refer to the PBwiki user guide on the site and also play the video clip uploaded under Access and Play.

Consequently, six participants (early adopters) played around with the „to access and play link“ moved to the link to support online introduction and wrote down their names and year of study (see figure, 7.1). Thus the early adopters assisted and helped their peers through the access process. Consequently, six participants successfully posted inquiry questions under the access and play link while four others made postings on the home page of the Hermwiki site. This closely aligns with DBR approach of a continuous process of trying out and testing things to improve educational practice (McKenney& Reeves, 2012). However, during the workshop, I observed that three participants had limited basic computer applications skills (could not type, pressed wrong keyboard buttons) even though they had accounts on social networks like Facebook. To this end, I differ from (Prensky, 2001) who claims that the generation born roughly between 1980

and 1994 has been characterized as „digital natives.“ These are described as living lives immersed in technology, surrounded by and using computers, video games, mobile phones and tools of the digital age. The situation is different in my context, as some students born between 1980 and 1994 are not „digital natives“, are not surrounded by computers, video games and still face a technological attitude problem. Thus, the workshop concluded with the educator/ researcher requesting participants to engage in further questioning and seeking clarifications on Hermwiki site, with an aim of improving their understanding of the history topic under study. At this point I contacted the other cohort of participants in the alternate years of study, who had volunteered to join the Hermwiki platform, to attend the face-to-face meeting scheduled on 5 November, 2014.

7.3.4 Face-to-face workshop

During the face-to-face meeting, I introduced the Hermwiki site to second- year and PGDE pre-service teachers (2014 entrants) taking history as one of their teaching subject at the School Of Education. Twenty-six participants attended the workshop comprising 20 second-year students and four PGDE students. These engaged with the Hermwiki platform in groups of four per functional computer. I then guided the discussion, leading to the construction of history meanings mediated on the Hermwiki. Moreover, three students volunteered to assist their peers on gaining access, making online introductions (initial steps of the Hermwiki). Subsequently, the workshop later focused on the last steps of the Hermwiki with the rationale of placing emphasis on the higher order thinking skills. These last steps were to make shared interpretations about history meanings, to support open question and clarification, make reflections, frame history and post class photos on the Hermwiki platform (see figure 7.1). As an educator, I scaffolded the constructing history meanings on the platform by engaging with different history topics proposed by participants. For example, during the pilot study, the agreed upon topic was neocolonialism, highlighting its manifestations in Uganda (see chapter 6). Similarly, at this workshop, participants collaboratively selected a history topic to engage with at the 2nd implementation of design solution as follows.

7.3.5 Process of identifying history topic

At the face-to-face workshop, one participant from third year proposed a topic, *Ethnicity in Uganda*, suggesting that it would help participants identify with their own cultures while appreciating other peoples' cultures as well. This topic was also deemed important because it covered under the general content of history in Uganda thus participants would get chance to talk about the history of their own cultures. Monte-Sano and Budano (2012) postulates that, motivation and interest to learn about the past can be achieved by listening to students' ideas. The argument for engaging with *Ethnicity in Uganda* as an identified was seemingly appropriate for each participant's cultural inclinations. All 26 participants who attended the face-to-face workshop unanimously agreed to tackle *Ethnicity in Uganda*. In support of this view, I reiterated that *Ethnicity in Uganda* was a key topic in the proposed lower secondary school Social Studies curriculum reform (see chapter 2, section 2.6). Moreover, this would be a great chance to tell the world about the distinct cultures in Uganda. We then focused our discussion on the Sabiny/Sebei culture because of its rich culture about Female Genital Mutilation (FGM) as an initiation into the adult life to represent decentralized societies, while Buganda would represent centralized societies in Uganda because it has a centralized system representative of other centralized societies in Uganda. As an educator, I asked the participants to read multiple resources about the selected societies under study, to analyze the content and make an interpretation to be posted on the Herwiki.

Participants were also requested to upload pictures, videos and audios about *Ethnicity in Uganda*. If educators pay attention to what students care about, it is more likely that young people will be engaged in school (Stockdill & Moje, 2013). This alludes to the historical hermeneutic construct of understanding of cultures/traditions through a multiplicity of views. Family experiences are much more relevant in linking to students' underlying approaches to history (Seixas, 1993). For the purposes of this study, ethnicity is viewed as a natural human desire to know about one's family history and ancestry. The identification of different topics at the different iterative cycles in chapter 6 and the current chapter ensured dependability and transferability of the results accrued from the study. That said, Stockdill and Moje (2013) argue that insights in to texts and topics that

capture learners' attention can inform the development of history curricula, materials and pedagogy by using what learners already know about their interests to make clear the relevance of the discipline to every day.

It is worth mentioning that the initial number of participants enrolled for the project was 30 but the number reduced to 20, as they were recruited on a voluntary basis and they were free to exit at will. At the end of the workshop, one participant thanked me for introducing him (his) peers to the Hermwiki project that he described as an innovation in History Education. Thus, the educator concluded the workshop by encouraging questions for clarifications aimed at improving participants' understanding of the topic, *Ethnicity in Uganda* on the Hermwiki platform.

The proceeding section presents the research findings.

7.4 Research findings aligned to revised principles

Following DBR phase 3, where formative evaluation focused on improving and refining the problems, solutions and design principles (Reeves, 2006; Clark, 2013), I aligned the data findings from the data collection methods focused on answering the research questions with the revised design principles – i.e.: step 1: to access and play, step 2: to promote online introductions, step 3: to share preconceptions about History Education, step 4: to make shared interpretations of history meanings, step 5: to support open questioning and clarification, and step 6: to support reflections and framing history as reflected in figure 7.1 above. That said, the proceeding section provides a description of the components of the questionnaire and the related analysis drawing on the hermeneutic cycle driven analysis.

7.5.1 Questionnaire

7.5.2 Section A: background information of participants

This section begins by a presentation of findings from section A, categorized as participants' demographic information. The categorization of participants was as follows: gender, year of study, and prior use of highlighted social networks, coupled with a

question to probe how engagement with the highlighted social networks would be achieved. Participants were further categorized according to their orientation to use of ICTs in teaching and learning as presented in the breakdown table 7.3.

Question	Options provided	No. of participants out of 20
i) Tick the appropriate gender	Male	14
	Female	6
ii) What is your current year of study?	Second of study	10
	Third year of study	7
	Pre-service PGDE	3
	Other	No response
iii) Have you used any of the social networks below? Indicate by ticking	Facebook	20
	Twitter	8
	WhatsApp	9
	LinkedIn	6
	MySpace	No response
	Badoo	1
	Other	2
	None of the above	No response

Table 7. 3: Participants’ background information at implementation 2.

The findings presented in table 7.3 questionnaire question i) revealed that, out of the 20 participants who participated in the study, 14 were male and six were female. The rationale for asking this question was to establish the different gender of the study participants because of the need of an equitable distribution of the affordances that come with the use of ICT in History Education. The difference in gender of more males than females could be attributed to the low levels of female than male entry in to University. The low level of participation of females was also evident at the various debates on the topical issue *Ethnicity in Uganda* particularly FGM among the Sabiny (see chapter 7), whereas male counterparts felt more empowered to talk about the female topical issue. That said, questionnaire question ii) revealed that, of the 20 study participants, ten were in their second year of Bachelor of Arts with Education degree; seven were in their third year while only three students were taking a PGDE course. This variation in the number

of participants who engaged in the study is attributed to the fact that, students only start taking the history methods course during their second year in second semester, so they always look forward to and are excited by activities in this course. The third year students normally have an established base in history methods and are quite engaged with various course modules and course works undertaken in their final year of study. Perhaps that is why they were less in number. The PGDE students (normally few in number) are graduates who obtained first degrees and train to become professional history teachers at the secondary school and tertiary institutions of learning (CEES Strategic plan, 2010). This cohort of graduate PGDE participants presented an advantage to this research as they contributed to the history making process from an experienced point of view as many are partly employed by different educational institutions in Uganda.

Consequently, following table 7.3 above, questionnaire question iii) was deemed to investigate whether participants had engaged with the underlined social networks before. The rationale behind this question was to establish whether the participants were on any social network and therefore would be more likely use of the Herwiki learning platform. Findings indicated that all the 20 participants had used Facebook, nine had an engagement with WhatsApp, eight with Twitter, six with LinkedIn and none of the participants had used MySpace before. Only two participants ticked the option „other“ with one participant stating an outlier Badoo. Since all the participants had engaged with social networks predominantly Facebook, it was more likely that they would easily use the Herwiki learning platform for collaborative construction of history meanings, notwithstanding their exposure to an educational technology course during their first year of study. Subsequently the findings suggest that today’s students are connected to social networks and are continuously engaged in sharing posts, images, videos as a way of interpreting of the world as it unfolds. Having established participants’ engagement with social networks, questionnaire, question iv) required students to indicate how they had actually engaged with the social networks indicated in table 7.4 below (see Appendix B).

Questionnaire Question	Response in themes formulated from data	Sub-themes arising from data	Number of participants out of 20	Salient comment
iv). Please indicate how you engaged with the social networks highlighted above?	Communicating with friends		7	<i>„Facebook, Twitter and WhatsApp are mainly platforms where I get in touch with friends, upload my photos and post information for friends to communicate with me“</i> (B1)
	Following up key people and events		3	<i>Twitter is exclusively a platform that I use to follow pages and people that interest me. For example MASA(</i> B5)
		Obtaining updated information	1	<i>„I use Facebook and Twitter to get news updates locally from televisions like NTV and globally for BBC news“</i> (B7)
	Educational purposes		1	<i>„I use Facebook k every day, I stayed logged just to get in touch with study platforms like Comparative Education, ESASDEI; educational research.“</i> (B12)
		learning history	4	<i>„I use Facebook in many ways; to exchange educational information with my friends, course works about history and we can improve history teaching in secondary schools to more relevant and practical“</i> (B9)
	Networking/collaborations		2	<i>„Use networks for interaction with people globally around the world“</i> (B8)
		Information about existing job opportunities	1	<i>„LinkedIn is a platform I joined to get information about jobs and contacts but I haven’t explored it</i> (B14)

Table 7. 4: Findings from participants’ engagement with social networks

With regard to table 7.4 question iv), participants indicated how they engaged with the social networks highlighted above. Results reveal that participants engaged with different social networks for different purposes with Facebook being predominantly used for multi-purpose functions. This implies that students indicated use and engagement with particular social media for various purposes. Thus findings indicated that out of the 20 participants, seven used social networks for communicating with friends, three for following up key people and events, with a subcategory of one citing obtaining updated information, five for educational purposes with a subcategory of four specifically highlighting the learning history. Moreover, two participants indicated use of social media for networking while one indicated use for social media for obtaining information about existing jobs. One participant (B20) did not respond to this question and left a blank space.

The salient comments from table 7.4 were analyzed using the hermeneutic cycle driven analysis in reflection of the theme, extract and explanation. As earlier mentioned, the major focus of the analysis was on the hermeneutic cycle, „parts“ and the „whole“ coupled with evidence of the historical hermeneutics constructs in the texts and themes. Thus, two examples were selected as extracts for analysis (see table 7.4) mainly because they were well worded with phrases (parts) contributing to the general understanding of using social media in History Education (whole).

Example 1: Analysis procedure

Theme: Communicating with friends

Extract: *„Face book, twitter and whatsApp are mainly platforms where I get in touch with friends, upload my photos and post information for friends to communicate to me“ (B1)*

Explanation: Participant B1 used the phrases and words such as, „face book, twitter and whats App are mainly platforms where I get in touch with friends“ (parts). The sentiment suggests that, today’s students use social media platforms for dialogical conversations with friends. Thus, social media platforms can be embraced in History Education to interest students in learning about the past and also to connect to students’ thinking in the

present (whole). Moreover, B1 further engages with the words, „upload my photos“ and „post information for friends to communicate to me.“ In line with the learning of history, this can be possibly done by exchanging historical texts, images and pictures while attaching meaning to them. Such a pedagogical strategy will definitely address the challenge of students finding the learning of history boring (see, chapter 1). This suggests that today’s students are in a continuous state of actively participating and engaging in dialogical conversations with their peers. This qualitative sentiment provides evidence of the historical hermeneutic constructs earlier introduced in chapter 5 (see table 5.1). This is reflected under dialogue among participants for either academic purposes or social networks, and fusion of horizon between the past and the present, hence learning history using emerging tools (social networks) in the present. Given that my research was guided by the DBR notion of refining problems, solutions, methods and design principles (see chapter 4, figure 4.1), results in table 7.4 provided a partial solution to the research problem identified. Having provided example 1 of the analysis procedure, I move to example 2:

Example 2: Analysis procedure

Theme/ sub-theme: Educational purposes: Learning of history

Extract: *„I use face book in many ways to exchange educational information with friends; history course works; how we can improve history teaching in schools to make it simple and practical.“ (B9)*

Explanation: Participant B9 uses the words such as „I use Facebook to exchange educational information with friend“ and „history course works.“ Moreover, he engages with the phrase; „improve history teaching in schools to make it simple and practical“ (parts). This sentiment relates to my earlier interpretation of engaging with the affordances of social networks to enhance students’ active participation in attaching meaning to the past. This fusion of horizon between the past (history courses) and the present mediated by social media platforms facilitates the practicability of History Education. These findings are in agreement with the literature review (see chapter 2) which confirms that today’s students or young people pursue personal interest with support of friends to link learning interests, for professions, networking and researching

(Mizuko, Gutierrez, Livingstone, Penuel, Rhodes, Sahen, Schor, Sefton-Green, Watkins, 2013).

The next question was deemed to establish whether the participants had been exposed to using ICTs for teaching and learning purposes as presented in table 7.5.

v) Question	Options provided	No. of participants out of 20
I was introduced to using ICTs in teaching and learning through the following ways. Indicate by ticking	At high school	10
	At university	9
	Self-directed reading of ICT resources/materials	5
	Taught myself	2
	Assisted by a friend	6
	Other/please specify	No response
	None of the above	No response

Table 7. 5: Findings from participants' initial introduction to ICTs in pedagogy

Question v) highlighted in table 7.5 aimed at establishing whether participants had used ICTs for teaching and learning purposes. Ten participants revealed that they had been introduced to using ICTs at high school, nine at the university, while five through self-directed reading of ICT resources/materials. Two participants ticked the option of „taught myself“; six revealed that they had been assisted by a friend, while the options of „other“ and „none of the above“ were not responded to. The results implied that the participants (pre-service teachers) have opportunities to develop the potential of using ETs such as Wikis (part) to enhance the quality of teaching and learning of history, thus be more likely to use such tools with their future students at the secondary school level (whole). This question would have investigated participants' prior experience on practically utilizing ICTs in pedagogy. Thus sharing the strengths or weaknesses that came along with the use of ICTs in the pedagogical process would be relevant. Gadamer argues that pre-conceptions and prior experience utterly provides the basis of valid understanding

(Porter & Robinson, 2011). Consequently, these findings align with the literature that postulates that access to and use of ICT for pedagogical purposes has become common at high schools and universities in Uganda as all advanced-level arts students take ICT as a principal subject (Ndidde, Lubega, Babikwa, & Baguma, 2009). Evidently, the historical hermeneutic construct, fusion of horizon between the past (learning to how to use ICT) and the present (integrating of ICT in their present situation) is realized.

Conclusively, given the findings from Section A above, I infer that there is still a gendered divide at the Makerere University particularly in History Education, since females exhibited lower interest in engaging with construction of history meanings on the Hermwiki platform than their male counterparts. Also, today's students are exposed and aligned to social networks and have engaged with ICT tools for communicating and collaboration with peers and friends. This is in conformity with the thesis problem where contemporary students would certainly find the dominant behaviorist approach reminiscent in most history classrooms boring and passive. These findings align with my argument of a need to engage students and educators in dialogical construction of history meanings mediated by ETs in the present.

Having established the background information of the study participants, I moved on to establish findings in response to my research question 1: How is historicity constructed on the Wiki platform among pre-service teachers at Makerere University? The findings from the underlined research question were linked to revised design principles (see table 7.1) and presented under 7.6, section B.

7.6 Section B: construction of historicity on the Hermwiki platform

As in the preceding sections, ongoing interpretations under the theme construction of historicity on the Hermwiki were guided by theory-driven analysis procedural steps and structure following the theme, extract, explanation. Consequently, questionnaire findings at step 1 „to access and play“ are presented.

7.6.1 Questionnaire findings at step 1: to access and play

Questionnaire questions 1 and 2, together with the related participants' responses were aligned; „to access and play“ as reflected in table 7.6

Question	Options provided	Responses out 20 participants
1.) How do you access the History Education Hermwiki platform? Indicate by ticking	Use of a mobile phone for access	4
	Use a desktop computer for access	No response
	Use my personal laptop for access	8
	Use the computer laboratory	7
	Use my friend/relatives' laptop for access	1
	Use the internet Café	No response
	Other/Please specify	No response
2.) I used the following to familiarize myself with the History Education Hermwiki platform	PBwiki User guide provided under Access and play	9
	I played the Youtube video under Access and play	2
	I played around with the Wiki and taught myself	6
	I consulted a friend,	1
	I consulted the educator	1
	I had prior knowledge of using the Wiki platform	No response

Table 7. 6: Findings from questionnaire question 1&2

Question 1 was deemed relevant to establish the accessibility to ICT infrastructure among the participants and thus their likely use and frequent engagement in the collaborative construction of history meanings on the Hermwiki platform. Responses to questionnaire question 1 revealed that, out of the 20 participants, four used mobile phone for access, eight used their personal laptops for access, no response was recorded for use of a desk

top computer, seven used the computer laboratory, while only one participant used a friend/relative's laptop to obtain access. The findings suggest that participants utilized the available ICT infrastructures to gain access to Hermwiki platform. This therefore implies that it is possible for participants (pre-service teachers) to easily gain access to online learning platforms using the available technological tools and infrastructure within their means and context. Therefore, on reflection, this form of gaining access is evident in the historical hermeneutic construct of fusion of horizons (see chapter 5, table 5.1). Moreover, these findings slightly differ from similar studies carried out at Makerere University that indicated a limited access to ICT and therefore less utilization for pedagogical purposes (see Aguti & Fraser, 2006; Bakkabulindi, Sekabembe, Shopi, & Kiyangi, 2009; Bakkabulindi & Adebajo, 2011). This change in access to ICT can perhaps be explained by students' easy acquisition of affordable devices and wireless access to the internet (also acquired through internet data bundles). However, although these results were representative of a limited number of participants who expressed interest and volunteered to take part in this research, they were obtained from a diverse group of participants (see table 7.3) that are generalizable to the MU context. Moreover, such data provided useful insights and evidence that it was possible for students to gain access using available tools within their contexts and this served as a major step towards using ETs for pedagogical purposes.

Having gained access, participants were orientated to developing confidence in using the Hermwiki platform through play (see figure 7.2). Thus, following the lessons learnt and recommendations made from the first implementation of design solution (see chapter 6, section 6.9), an online space labeled „Access and play“ was created for participants to play around while in the process learn how to construct history meanings on the platform. Consequently, table 7.6 presents findings in response to question 2, which was deemed to investigate gaining confidence and familiarization on the Hermwiki through play. Thus, findings revealed that, out of the 20 participants, nine used the PBWiki User guide under Access and play, two played the YouTube video under Access and play, six played around with the Wiki and taught themselves, two consulted from a friend, while only one consulted the educator. These results suggest that participants were able to gain

confidence and familiarization in using the Hermwiki platform through play and collaborations among each other. The said, collaborations were between student-Wiki user guide (content), student-video, student-peers and student-educator. It is against these findings that I argue for the relevance of creating spaces for play (learning without strict rules and structures) as a great orientation towards making the learning about the past enjoyable and fun. In agreement with this view, Gadamer postulates that even when we engage in play and relaxation with something, we are always serious about obtaining new horizons (understanding) and learning from what we are doing (Niekerk, 2002).

Therefore in conclusion, questionnaire question 1 and 2 revealed that participants were able to gain access, familiarization and confidence using the Hermwiki platform through play. The historical hermeneutic constructs of dialogue and historicity were evident at this step, as learning was informally achieved through asking funny questions while obtaining responses to pertinent history issues (see table 7.7). Consequently, the above questionnaire findings were collaborated with interview sentiments presented in the next section.

7.6.2 Interview findings at step: to Access and play

The findings from table 7.6 were corroborated with interview findings. Thus the relevancy of engaging with interviews was in cross-checking what the participants actually said (Ajjawi & Higgs, 2007). It is important to mention that only ten out of the 20 participants volunteered to respond to interview question 1, which required participants to describe how they familiarized themselves with the features on the Access and play page of the Hermwiki site (see Appendix A). The reason could have been that students were busy with the semester two activities at the university and could not make time to ably engage with the interview sessions.

Interview findings were categorized into themes as identified from the data as follows: utilization of the PBWiki user guide under Access and play, playing around with the buttons on the Wiki, teaching myself, and playing the Youtube video to gain a visual

understanding. Moreover, salient sentiments from the three themes arising out of the data were ones from three participants that were worded very well and related to access to the Wiki learning environment.

“I accessed the Hermwiki platform, clicked and studied the PBwiki user guide. I then decided to play around with buttons with several trials and failures until I finally uploaded my family pictures.” (A26).

Another also retorted and said that:

“At first when I logged in I failed were exactly to go and start on, but when I opened instructions and watched the Video clips I learnt and now I have no problem with using it. (A27).

While another expressed his change in attitude and excitement about learning history:

“My attitude about learning history has changed; before my engagement with the Wiki, I found history was boring and theoretical; the continuous practical (play) trial of posting and uploading historical images like Kasubi tombs, asking peers” questions makes the past look real and present today.” (A28).

Hermeneutic cycle driven analysis of interview sentiments (theme-extract and explanation)

Given the illuminated themes highlighted above, participant A13 uses the words and phrases, „I decided to play around with buttons with several trials and failures, while A14 uses the phrase, „when I opened instructions and watched the video, I learnt.” Similarly, A15 said that her „attitude about learning history had changed; the continuous practical play trial of posting make the past look real and present today (parts).” In correspondence to findings from the questionnaire above, interview qualitative sentiments suggested that learning history could become fun and exciting through practically engaging participants in learning about the past. Given the information age in the contemporary world, exploring the availability and potentials of ETs can make learning exciting and this can be achieved

through several trials of uploading historical pictures and images. Gadamer argues that play is key in the dialectic of trying to gain understanding of a given phenomenon (Gadamer, 2004). Hence, the historical hermeneutics constructs of fusion of horizon between the past and the present are evident in the above qualitative sentiments. The fusion of the part is reflected in uploading historical pictures and images while the present is reflected in both play and attaching meanings to the past. The results above were further complemented with observational findings at Access and play.

7.6.3 Observational findings at step 1: to Access and play

Observations at Access and play are presented in figure 7.2.

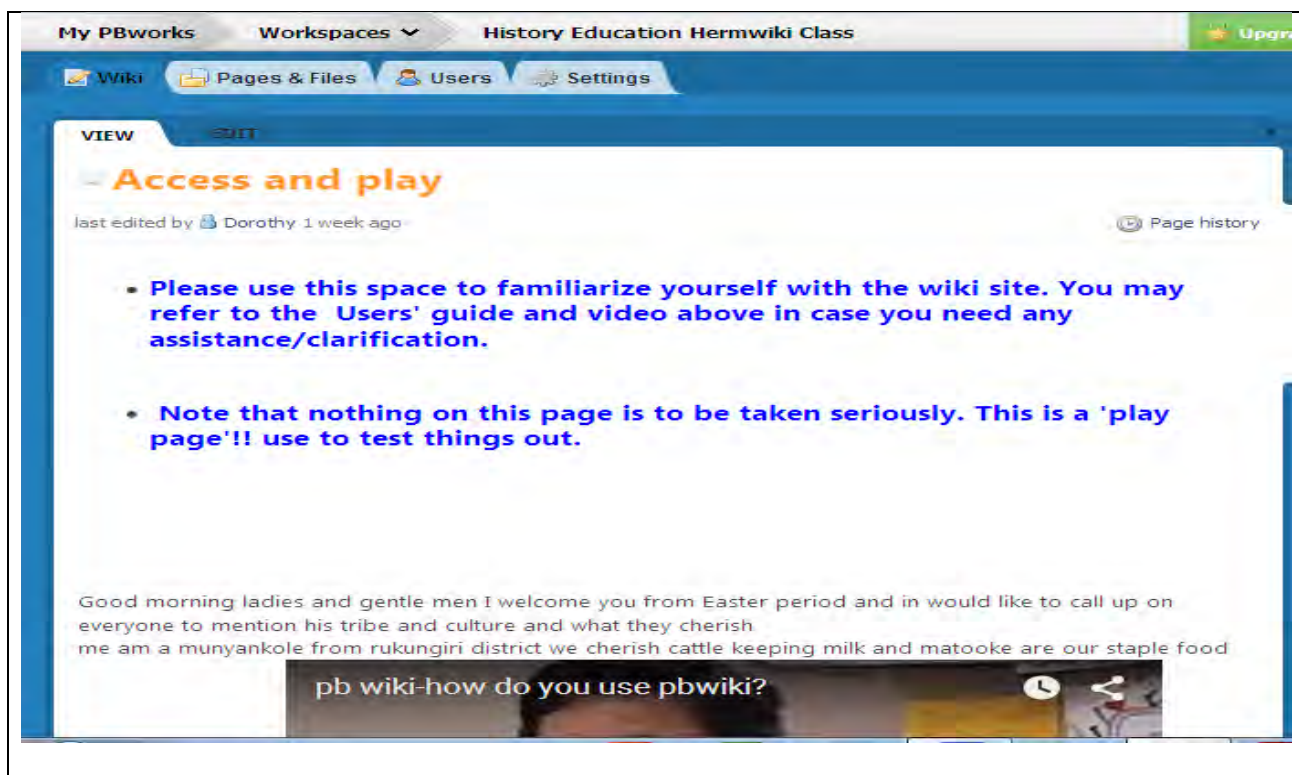


Figure 7. 2: Observational findings at step 1- Access and play

Following figure 7.2, the first caption was highlighted as „Access and play“ (orange in color). This was followed by the educator’s task (blue in color) that required participants to engage with Access and play page and familiarize themselves with learning on the Hermwiki. The educator further cautioned participants that this was a trial, play and fun page and that nothing was to be taken seriously. In response to the educator task,

participants tried out several encounters and trials of making postings, uploading images, videos. As mentioned in the preceding chapter, the rationale behind the Access and play page was to enable participants learn how to engage with the Hermwiki platform as they uploaded trial pictures, images and posted questions for clarification. This attests to the historical hermeneutics view of play and dialogue in which play is described as a strange dialectic of lightness and seriousness and dialogue through asking questions to obtain further understanding (Niekerk, 2002; Porter & Robinson, 2011). Consequently, observational findings were substantiated and supplemented with qualitative statements presented in table 7.7.

Educator's task/activities	Participants/ students' activities	Description of activities and themes arising from data	No. of participants out of 20	Representative comment
Uploads a PBwiki video and userguide Uploads a play picture for History time lines Tasks participants to familiarize themselves with the PBuser guides	Refers to the PBwiki userguide & video for guidance	Compliments from the questionnaire and interview revealed that participants referred to the PBuser guide for guidance		No representative comments captured
Cautions participants that this was a trial play page and nothing was to be taken seriously on this page Supplemented participants' posts	Engaged with trial sessions of uploading pictures/ images	Five trial images uploaded (images from the historical artifacts and the present (family pictures))	three participants uploaded trial images	No representative comments captured
	Played and had fun at Access and play page Made dialogical conversations of questioning and responding to each others' questions with complements from Educator	Students' activities coded and categorized into two themes:		Three representative comments from each theme
		History education dialogue	13 participants engaged in History related dialogue	<i>„I would like to know whom historians regard as the mother of history.“ (C9)</i>

		Fun and play dialogue	ten participants engaged fun and play dialogue	<i>„Hi friends, am seeking for advice in a project am starting in my village. This shall cover basic aspects like enabling my community to apply historical knowledge to solve some problems like; conflicts in my community so dear friends advise me.”(C10).</i>
--	--	--------------------------	--	--

Table 7. 7: Participants’ activities at step 1-Access and Play

The observational findings in table 7.7 re-echoed educator and participants’ activities as highlighted in figure 7.1. Columns in table 7.7 labeled the description of activities and themes arising from the data (see Appendix C). Given that the action of engaging with the Hermwiki user guide and video for guidance could not be directly observed on the Wiki platform, the table column was left blank. Observational findings revealed that only three out of the 20 participants uploaded trial images and videos. Two of the images uploaded represented the past viewed through the lens of the present (the burning of a World Heritage Site, the Kisubi tombs in May 2010, a historical place where Buganda kings were buried), while the remaining three uploaded trial images that represented family images (see, <http://tinyurl.com/ztu5b3b>). These observational findings suggested that participants used their present experiences (uploaded pictures and images) to interpret the past, hence using their present understanding to refer to the past. This observation was significant as it manifested a reflection of the historical hermeneutics notion of fusion of horizons between the past and the present.

Observational findings highlighted in table 7.7 above were further coded and categorized into themes: History Education dialogue, and fun and play dialogue. History Education dialogue was represented through questions and clarifications about history written in a fun and joking way, while fun and play dialogue represented the funny questions that students asked while they played about. Out of the 20 participants, 13 were themed under

History Education dialogue while the remaining ten fell under the category of fun and play dialogue. Two extract examples that represent the illuminated observational themes are analyzed:

Observational analysis example 1

Theme: History Education dialogue

Extract: *‘I would like to know whom historians regard as the mother of history’ (C9).*

Explanation: The student created a dialogical question, which seemed funny but required an answer. For example, she used the phrases and words, „whom historians regard as the mother of history“. Teachers and educators always teach about Herodotus (484-425 B.C), an ancient Greek historian as the father of history who spearheaded the world’s first piece of historical writing known as historians (Herodutus, 1890). It was quite funny that the student inquired about the „mother of history“. Such a question could yield into endless probing and multiple interpretations that explain the fact that there is no one right answer in history. I argue that this view is significant in History Education because, during the process of inquiring and searching for answers to that question, one engages in dialogue with different history texts that broaden and increase one’s horizon and bring new meaning about the past. This is in agreement with the historical hermeneutics theoretical perspective that postulates that without opening ourselves to asking questions, we cannot have new experiences (Gadamer, 2004). It is therefore of great importance to establish a dialectic or open-ended questioning and answering between the past and present in History Education, as understanding is endless and requires unending dialogical conversations between the text (history content) and students under the guidance of the educator.

Observational Analysis Example 2

Theme: Fun and play dialogue

Extract: *„H friends, am seeking for advice in a project. I am starting in my village. This shall cover basic aspects like enabling my community to apply historical knowledge to solve some problems like; conflicts in my community so dear friends advise me.’ (C10)*

Explanation: The above statement is indicative of the student's need to use history knowledge to solve his problems in the present. The student uses the phrase, „enabling my community to apply historical knowledge to solve some problems like; conflicts in my community“. This statement was important for two reasons: firstly, it linked educators and teachers to students' thinking in the present where the student sought advice from „friends“ to solve his challenges in the present, „conflicts in the community.“ The statement provided a great lesson for History Education to align the pedagogical content with practically solving current problems in the present (community). Secondly, this statement partly responded to the study problem (see section 1.1) where the History Education discipline is viewed as more theoretical without guiding students to use lessons from the past to solve problems in their real life challenges. In agreement with this view, Gadamer postulates that we need to think through the continual opposition between the educational task of the of History Education and the practical utility and application which society and the community expect from it (Fairfield, 2015).

In my view, the above observational findings provided a different perspective from what was presented by the questionnaire and interview findings. Thus the observations as viewed through the educator and students' lens included: uploading trial images (historical images and family pictures), cracking funny jokes, and making dialogical conversations linking the past to the present. These statements suggested that sharing constructions of history meanings could potentially become an interesting, exciting and fun learning activity mediated by HermitWiki (ETs). As shown earlier, this view partly provides a solution to today's students who find learning about the past the boring. Therefore, the DBR notion of refinement of the problem and revising solutions (see chapter 4, figure 4.1) was evidently manifested at step 1. Having presented qualitative findings at step 1, I proceed to step 2: to promote online introductions.

7.7.0 Questionnaire findings at step 2- to promote online introductions: cultural/family history

Findings from questionnaire questions 3, 4, 5, 6, 7a and 7b (see appendix B) were aligned to the revised design principle: to promote online introduction. As mentioned in the preceding chapter, this driven by the desire for participants to make online introductions

by mentioning their names, year of study and sharing images/postings on something about their cultures/family history. In agreement with this view, Salmon (2002) argues that building a foundation for a vibrant online community cultivates trust between students and they become comfortable with the online culture of sharing and exchanging information. That said, findings from question 3, 4, 5, 6, 7a and 7b: Introductions/Family history, are summarized in tables 7.8.

Questionnaire question	Options provided	Number of participants/ responses out of 20
3a) I shared the following resources about my family/ culture history.	Written texts	10
	Photographs/picture	6
	Newspaper articles	No response
	Video clips	No response
	Audio recording/podcast	No response
	Web links	1
	Other	2
	None of the above	1

Table 7. 8: Findings from questionnaire question 3a

Findings from table 7.8 reveal that, out of the 20 participants who responded to questionnaire question, ten shared written texts about their family/culture history, six shared photographs/pictures, one shared a web link, only two participants ticked the option „other“, while one ticked the option „none of the above“. The results revealed that most participants (10) preferred to use a written narrative in form of texts to tell and share their family/culture history with others. This could perhaps be due to that fact that most students wanted to engage in dialogue through „telling a story“ about their family/cultures, which seemed to convey one’s individual thinking that peers would be willing to listen to. This attested to the historical hermeneutics philosophy of communication during a conversation and listening to what others have to say in written texts effective at obtaining true understanding (Gonzalez, 2015). Moreover, the students’ responses above partly provided evidence of constructing historicity, since personal histories and cultures are important influences in the formation and shaping beliefs,

interests and understanding (Gadamer, 1989). These findings, however, contrasted with the literature shared in preceding chapters that viewed today's students as being heavily immersed in technologies (Prensky, 2001), and thus their likeliness retrieve past information about their families/cultures by sharing videos and pictures about the past. For example, from table 7.8 above, only six out of the 20 participants shared pictures and images about their family history. Based on these questionnaire findings, I argue that much as today's students are heavily engaged with social networks like Facebook as evidenced earlier but they need to be continuously trained in integrating these tools in the pedagogical process. Such trainings should continuously be conducted for both pre-service and in-service teachers with a great potential of embracing innovations in History Education.

Having presented available information in the form of shared resources about the participants' family histories, the following questions 4, 5 and 6 present a detailed description of the shared family/culture history as a form of openness and listening to participants' ideas on family history, with an aim of reaching understanding following historical hermeneutic lens through which this research is anchored.

Questionnaire Question	Responses in themes formulated from data	Sub-themes arising from data	No. of participants out of 18	Salient comments
4).Describe something significant/interesting about your family/cultural history	Cherish cultural values		10	<i>I have just realized that cultures have specific values; I really cherish my culture. For example we visit the bush and pull/elongate the labia (B14)</i>
	Gender roles between boys and girls		2	<i>In my culture, when boys and girls reach the age of 12 years. Girls in particular are taught cultural values and norms while boys are taken to their uncles(B7)</i>

	Marriage ceremonies are exciting		3	<i>At home, we get so much excited when it comes to introduction ceremonies (B5)</i>
	Initiation ceremonies		2	<i>Initiation ceremonies especially for the young youth are usually made during November and December each year (B13)</i>
5).Why do you think sharing your Family history above is significant?	Appreciating culture and heritage		8	<i>When one shares his family history, it enables one to appreciate his culture and heritage and compare with other cultures (B9)</i>
		Culture as a source of Respect	2	<i>It's important to give courage to other people to respect their kings with a lot of love (B10).</i>
	Learning about different aspects of the past		3	<i>It keeps others informed about the different values of society for appreciation and respect (B14)</i>
		Cultures provide a sense of belonging and identity	2	<i>„It shows a sense of belonging; it identifies me with other people and also summarizes my cultural values (B4)</i>
	Transition of cultures to the present		2	<i>„It is interesting to me because it shows the transition that human beings and society have undergone to the present.”(B1)</i>
		Preservation of culture	1	<i>I feel part of history when I describe, appreciate and write about my culture it's a way of keeping and preserving it (B2)</i>
6). Describe something interesting about	Cultural diversity/ Uniqueness of culture		10	<i>What is interesting are the differences in cultural histories between each participant on the Wiki platform. (B11)</i>

another member of the HermWiki group's family/ cultural history?		The videos, images shared on FGM among the Sabiny	5	<i>„The Sebei culture has been very interesting to me more especially the cultural practices of FGM shared in the videos and images on the Wiki. ”(B15)</i>
	Ability to fight tribal wars and conflicts		3	<i>„People should appreciate and unite in diversity to solve the problem of cultural groups clashing and tribal wars.”(B16)</i>

Table 7. 9: Findings from questionnaire questions 4, 5, 6

Data in table 7.9 revealed that of the 18 participants (two left it blank) who responded to question 4, ten cherished cultural values, two upheld the gender roles between girls and boys, four highlighted marriage ceremonies as exciting, with three falling under the sub-theme of initiation ceremonies as something significant about his culture, one response was not represented in the table as it seemed irrelevant to the student focus (Appendix B). Therefore, as earlier mentioned in chapter 4, the hermeneutic cycle-driven analysis was employed to analyze examples of excerpts from table 7.8 following a procedural process of theme, text and explanation. Importantly, these three extract examples were identified because they captured words and phrases that were geared to responding the study research questions.

Analysis Example 1

Theme: Cherished cultural values

Text: *I have just realized that cultures have specific values; I really cherish my culture. For example we visit the bush and pull/elongate the labia in preparation for sex in marriage while people from the Sabiny culture cut the clitoris women off (B14).*

Explanation: B14 appreciated the diversity and uniqueness among cultures while also expressing great interest in her own culture. For example, she used the words and phrases like „I really cherish my culture“ and went on to provide an example of the cherished cultural practice, „we visit the bush and elongate the labia in preparation for marriage.“ She also gave an example of diverse cultural practice practiced by another ethnic group

„Sabiny culture,” „cutting the clitoris” in preparation for marriage. This is relevant in History Education as students relate to their lives and peers’ life, which makes them see themselves in the academic version of the history discipline.

That said, qualitative sentiments reflected above partly provides solutions to the research problem illuminated in chapter 1 and 2. Thus, students could in response to the illuminated challenge see the relevancy of studying history (tradition and cultures), providing them with identity as well as appreciating each other’s cultural values and backgrounds, which could perfectly enhance unity among humans beings. The historical hermeneutics construct of historicity was evident at this step as students (human beings) mostly understood ourselves through cultures that have been passed down through generations (Gjesdal, 2015).

Following table 7.9 above, 19 participants (one left it blank) responded to question 5 that required them to state why they thought sharing their family history was significant. Eight of the 19 revealed that they appreciated family/cultural heritage with two falling under the sub- theme of viewing culture as a source of respect, three participants attached significance to learning about different aspects of the past, with two falling under a subcategory of viewing culture as a sense of belonging and identity. Two participants revealed that the transition of culture is significant with only one under a sub-theme of attaching significance to preservation of culture. Subsequently, the remaining one response was irrelevant to the research focus and was therefore excluded. Findings from question 5 (see table 7.9) revealed an appreciation of family/cultural heritage with a focus on culture as a source of respect, a sense of belonging and identity and that it should be transited and preserved. This was substantiated by a hermeneutic cycle guided analysis extract example 2:

Analysis Example 2

Theme/subtheme: Appreciating culture and heritage/ preservation of culture

Text: „I feel part of history when I describe, appreciate and write about my culture it“s a way of keeping and preserving it (B2)

Explanation: B2 attached relevancy to history and therefore adhered to preserving it. This was reflected in the student“s words: „I feel part of history when I describe, appreciate and write about my culture“; „it“s a way of preserving it.“ These statements were analyzed in two ways: firstly, „feeling part of history“ (part) reflected a self-conception of belonging to tradition thus relating to one“s identity (whole). Secondly there was an expression of a need to „preserve“ such a tradition, which is pertinent in History Education. As earlier argued, if students are taught history in relation to their own life, they will definitely find the relevancy in learning about the past. History Education ought to engage students and educators in dialogical conversations about each other“s lives, for example, sharing stories about each other“s culture such that, through multiple interpretations meanings are validated. In the context of this research, history meanings are preserved through multiple constructions and validating of each other“s contribution through adding and editing content mediated by the Wiki meaning-making environment. This therefore suggested that Wikis can afford the preservation of history (culture) to be communicated through different generations of students. In agreement with this, the historical hermeneutics theory illuminates the importance of communication and preservation of tradition (culture) through different generations (Gjesdal, 2015). Hence, it is worth mentioning that the historical hermeneutics constructs of historicity, dialogue, and the fusion of horizon between the past (culture) and present (preservation) were evident in at this step. This shows that History Education might have to engage students and educators in unending dialogical conversations about the past (history content) to yield multiple views and perspectives as a strategy to keep history alive, thus preserving it through different generation. However, although the above findings were representative of the views of only 18 participants who responded to the underlined question, they provided useful insights to contemporary students“ thinking and needs as aligned to History Education.

Consequently, to further establish students' understanding of each other's cultures, question 6 highlighted in table 7.3 required them to describe something interesting about another member's family history. Out of the 18 participants who responded to this question (others left it blank), ten found the uniqueness/ diversity in each other's culture interesting, five viewed the uploaded videos on FGM cultural practice among the Sebei in North Eastern Uganda interesting, while the remaining three attached significance to the cultural practices of fighting tribal wars and conflict. These findings suggested that appreciation of the difference in each other's families and cultures bridges a sense of unity and brotherhood other than diversity. This is important in reducing the problem of cultural conflicts that is reminiscent in the present situation. Such diverse views were echoed in the historical hermeneutic perspective harboring differences and strangeness as producing grounds for understanding (Gadamer, 1989). Given the background knowledge and the role of culture and family history presented in the preceding questions, the students were tasked to share their views on whether they appreciated cultural heritage and feel part of history.

7a). Sharing something about my family/cultural history on the Hermwiki platform has made me appreciate my cultural heritage and I feel part of history.	Options provided	Number of participants who responded out of 20
	Strongly Agree	14
	Agree	3
	Strongly disagree	No response
	Disagree	No response
	None of the above	3

Table 7. 10: Findings from questionnaire question 7a

Findings from table 7.10 revealed that, out of the 20 participants, 14 ticked the option of strongly agree, three ticked the option of agree, there were no responses recorded for the options strongly disagree and disagree while the remaining option, none of the above, obtained three responses. To afford an in-depth understanding of the responses, question 7b tasked participants to give a reason for their choice of response as presented in table 7.11.

7b). Give a reason for your choice of response above	Responses in themes formulated from data	Sub-themes arising from data	No. of participants out of 20	Salient comments
	Participated in shared construction of family history on the Wiki platform		6	<i>„Members have shared with us values of their societies, with continuous questions and responses from each other; I feel obliged to participate in writing about my family history.“ (B14)</i>
		The past is reflected in our daily lives	1	<i>I have come to realize that whatever we follow in our family is under our history. So history is day to day life that we are living in. '(B5)</i>
	Appreciate my cultural heritage		9	<i>„It is a kind of appreciating my culture and trying to bring what happened longtime ago. It means I am constructing history out of my culture so I feel part of history (B9)</i>
		Respect for other cultures	2	<i>„Through reading and commenting on other peoples“ cultural backgrounds. I gained the values and respect for other cultures. '(B6)</i>

Table 7. 11: Findings from questionnaire question 7b

Data findings from table 7.11 were coded and categorized into themes and sub-themes arising out of the data as follows: out of the 20 participants who responded to question 7b, six had their responses aligned to the theme of participating in shared construction of family history on the Wiki platform, with a sub-theme of one participant who revealed that the past is reflected in our daily lives. Nine participants revealed that they appreciated their cultural heritage with two falling under a sub-category of respect for other cultures, while the remaining two participants didn't share anything (blank space). The findings suggested that students appreciated their cultural heritage and were aware of

the diversity in cultures, thus respecting other peoples' cultures. Family history was relevant in linking students to their own lives and making them feel part of history. Thus, historical hermeneutic notion of achieving understanding through tradition (different cultures), historicity, dialogue and a fusion of horizon were manifested at this step (see chapter 5: table 5.1).

In corroboration with the findings above, interview sentiments are highlighted as follows.

7.7.1 Interview findings at step 2: to promote online introductions: cultural/family History

The findings in Table 7.11 coincide with qualitative sentiments represented from three interviewees, who were aligned to the current situation while also focusing culture to a global perspective as follows:

„I appreciate my culture as it proves my historical heritage; I believe our original cultures should be preserved through aligning the traditional with modern cultures ushered in today by technology and modernization to avoid cultural erosion.”(A26)

While another reiterated that:

„As a historian, I felt enriched to read about other peoples' family history that enriched my knowledge scope. Also, there is a linkage to the present situation; for everything, there must be a root; it may have undergone changes but there is a big linkage with the past.”(A27)

Another participant disagreed with some cultural practices:

„While I love the idea of cultural heritage, I disagree with some cultures like the Sabiny culture of Female Genital Mutilation; some cultures in Northern Uganda where people man and woman fight before they get married. Such cultural practices do not show any respect human rights.”(A29)

To supplement findings from the questionnaire above, interview sentiments revealed an appreciation and respect of different cultural heritages. The statements suggested close alignment between cultural practices and contemporary phenomenon. Therefore this was indicative of cultural history as an important aspect that ought to be preserved through different generations. For example, student (A26) used the phrase, „original cultures should be preserved“; „aligning traditional with modern cultures ushered in today by technology.“ The perception of the student was such, while some people may not understand the relevancy of certain cultures today. She believed no form of cultural belief should be diluted but instead they should be aligned to modernity by using technologies that are available and accessible at different contexts. In agreement with the student’s view, I argue that original cultures can be preserved and communicated from one generation to another without being diluted or exaggerated - for example, the case of using ETs like Wikis where students, educators and the community can share original pictures, images and texts from newspapers about the past, attach meaning to them in the present and also invite other stakeholders to contribute their views. In my view, this could be a great move towards preserving culture while ushering in technology and modernization, as reflected in the students’ sentiment above. That said, student (A29) acknowledged that while she loved the idea of cultural heritage, she disagreed with some inhuman practices that did not „respect human rights“. From my point of view, I believe that cultures should be preserved and human rights respected. My argument is that human beings should be at liberty and should not be subjected to any cultural practices that deprive them of their freedom. In agreement with this, the historical hermeneutics philosophy guiding this research attested to embracing culture, tradition and history by changing and altering them to make them relevant to one’s context and desires (Gadamer, 2004: Regan, 2012). Consequently, interview sentiments were triangulated with observational findings.

7.7.2 Observational findings at step 2: to promote online Introductions

The observational findings provided evidence of the educator task (in blue) and related students’ responses highlighting the teaching subjects and culture as illuminated in figure 7.3.



Figure 7. 3: Observations findings at step 2- to promote online Introductions

In figure 7.3, students' names are blanked (color blue) out to ensure confidentiality, privacy and anonymity within this research. Educator and students' activities are further substantiated by table 7.12 (see Appendix C).

Educator'' activities/task	Students'' activities responses in themes	Description/ student responses in themes arising from data	No. of participants out of 20	Qualitative representative example
Asks participants to introduce themselves by stating their name, year of study, teaching subjects	Introduced themselves	Online identification	20	<i>„Hi, I am xxx a third year student at Makerere university pursuing bachelor of arts with education. My teaching subjects are history and Christian Religious Education. I am a Mugwere by tribe from Kibuku district (C9).</i>
Tasked to share something interesting about their Family History Make written texts/upload pictures, images of their family history.	Share a highlight about their family history and some uploaded cultural images and picture			
Supplements students'' questions and responses on family history	Peers welcome each other on the Wiki learning platform comment, question and respond to each other	Family history highlights	20	<i>Hullo everyone, I am xxx, offering BAED and doing History and Religious Education. I am a Samia by tribe from Eastern Uganda (C10).</i>
		Shared images about culture	7	<i>I am a muganda by tribe and I love my culture so much. I share some of the pictures from Buganda and the Katikirro of Buganda (C11).</i>

Table 7. 12: Participants' activities at step 2: to promote online Introductions

Table 7.12 exhibited a questioning and answering dialogical session between the educator and students. This was manifested by the educator task and students'' responses coded and categorized into themes as follows: all 20 students shared their online identities by choosing how they wanted to be known online for the sake of both their online confidence and ease of interaction (Sebbowa et al., 2014). Twenty participants shared

highlights about their family history by mentioning tribe, origin and something significant about their culture, while only seven uploaded images about their cultural history. Three reasons are highlighted for the small number of image uploads as follows. Firstly, this could be because some participants felt shy to upload family history images. Secondly, some cultural relics (representations of the past) are not available in electronic format. Thirdly, there was a challenge and difficulty in uploading images and videos as highlighted by participants under their reflections in the proceeding section.

To complement questionnaire and interview data above, observational findings suggested that students shared online identities and family histories for ease of interaction and understanding each other on the Wiki learning platform. These findings are evident in Gadamer's sentiment of understanding self through the family and state echoed earlier in chapter 3 (Gadamer, 1960).

Thus the findings suggested that students' needs aligned to sharing their family history provided a significant aspect of following (their thinking) what they know in the present while moving back to the past. Thus, by sharing family history students felt part of the history academic discipline through participating in the meaning-making process and thus eliciting the relevancy of studying the past in the present situation. As mentioned in the preceding sections, integrating the study of family/culture history in the academic version of the Uganda history curriculum would absolutely provide a partial solution to the underlying study problem of today's students finding history boring and irrelevant because they feel detached from it, although the shared views about cultural and family history were obtained from a case of 20 students, who might not ably represent all students taking history as a teaching subject at MU. These qualitative findings provided useful insights that might be applicable to similar contexts and were relevant in improving pedagogical processes. Having presented the results from step 2, the proceeding section presents the findings from step 3.

7.9.0 Questionnaire findings at step 3: to make shared interpretations of history meanings

Findings from questions 8, 9, 10, 11 were aligned to step 3 to make shared interpretations of history meanings. Thus, the significance of these questions was to establish how history meanings were constructed on the Wiki platform as echoed by research question 1. Step 3 was also linked to exchanging history artifacts through pictures, images and audios (see figure 7). That said, findings from questionnaire question 8 are reflected in table 7.13.

Question	Options provided	No. of participants per source of information
8). I consulted the following sources of information to enrich my understanding about Ethnicity in Uganda. <i>Indicate by ticking</i>	Text books in printed format	7
	Textbooks in electronic format	6
	Newspaper articles	4
	Journal articles	5
	Other web sources	3
	Visited historical sites /museum	6
	Read other members' post on Ethnicity in Uganda	9
	Other/please specify	No response

Table 7. 13: Findings from questionnaire question 8

Findings from table 7.13 revealed that participants consulted multiply sources to enrich their understanding on Ethnicity in Uganda. For example, out of the 20 participants, seven utilized text books in printed format, six used textbooks in electronic format, six visited historical sites/ museums, nine read other members' posts on Ethnicity in Uganda, five used journal articles, three used newspapers, three used other websites and three others visited elders. The findings indicated that the highest number of participants (nine) read what their peers had written about Ethnicity in Uganda on the Wiki platform. These

findings suggested that, participants preferred learning history from their peers through reading peers' posts on the Wiki, while questioning and responding to each other. The reason for peer collaborations might have been that, given the information shared(posts) on the identified topic, other students felt lazy to carry out their own or further research and instead commented and edited their peers' comments. Thus, the historical hermeneutics notion of dialogue obtained through openness to what the other had to say, questioning, answering and commenting on each other's views was evident at this step. Such theoretical views allude to understanding as a unity of shared dialogue by listening to the other voice (Gadamer, 1975: 1989). Moreover, the above findings revealed that all participants consulted and utilized more than one source of historical evidence. In view of this statement, it should be clear that true historical understanding could be obtained through consultation from multiple sources of historical evidence. To substantiate this view, the different sources of evidence from the past consulted to enrich participant's understanding included visits to historical sites, such as the Uganda Museum, reading textbooks in electronic and print versions, using journal articles, websites, reading newspaper articles, while others visited elders. Therefore, historical hermeneutics constructs of historicity and authenticity (see section 3.5.1 and 3.5.3) achieved through multiple perspectives as sources of evidence from the past to make sense of the present were manifested at this step.

To complement the above question, the proceeding question required participants to give reasons for the choice of sources of information highlighted in table 7.13. This required them to indicate why they selected the identified sources of information to enrich their understanding of Ethnicity in Uganda. Findings to question 9 are indicated in table 7.14.

9). Give reasons for your choice of sources of information highlighted above?	Responses in themes formulated from data	Sub-themes arising from data	No. of participants per source	Salient comments
	Need for a shared understanding from group members on the Wiki		10	<i>„The information which was provided by other members on Ethnicity in Uganda was well detailed with adequate images, videos and illustrations which improved my understanding.”(B12)</i>
		Questioning and responding to each other	5	<i>„I read other members” posts, questioned them about Ethnicity, supplemented with my own reading so that I would get a collective understanding of the topic.”(B11)</i>
	Textbooks in print/electronic format provide well researched valid information		5	<i>„Text books in electronic format have readily updated information that is well researched, valid and reliable.” (B1)</i>
		To rule out bias, myths and exaggeration said about my culture	1	<i>„I needed to get information from individuals with a view that wasn’t biased. All the history books that I read and still read are exaggerated with myths about my culture.” (B19)</i>
	To obtain real life evidence		4	<i>„The Uganda Museum had the historical artifacts by the Acholi and Baganda tribes this therefore gave me the</i>

				<i>feel of a real picture of the past which is vivid in my mind."</i> (B13)
		Elders tell stories from experience	3	<i>„I chose to visit some elders because they were cheaper to consult and this source was oral and had to tell me facts from experience."</i> (B16)
	Obtained multiple views and perspectives		1	<i>„I used selected sources that gave me multiply information on the beliefs and practices of different tribes."</i> (B2)

Table 7. 14: Findings for questionnaire question 9

Data from table 7.14 was reflected in findings categorized into themes and sub-themes obtained in student's responses to question 9. Out of the 19 participants who responded to this question, ten indicated the need for a shared understanding from group members on the Wiki platform with five falling under the sub-theme of a need to question and respond to each other, five revealed that text books in print/electronic format provided well researched valid information with one falling under the sub-theme of ruling out bias, myths and exaggeration said about culture. Four participants provided the rationale for their choice of response as the need to obtain real life evidence, with three falling under the sub-theme of the need to obtain information from elders because they tell stories from experiences, while only one participant indicated the rationality of obtaining multiple views and perspectives from selected sources. That said, I read through the themes arising from the data and salient comments over and over again and finally identified two excerpt examples from 7.14 that contained words and phrases that would respond to the research questions. Thus, the two examples were used to illustrate the analysis procedure that cut across for the other comments as well.

Analysis Example 1

Theme: Need for a shared understanding from group members on the Wiki platform

Extract: „The information which was provided by other members on Ethnicity in Uganda on the Wiki platform was well detailed with adequate images, videos and illustrations which improved my understanding.”(B12)

Explanation: According to the student, „the information that was provided by other members” was sufficient enough to improve her understanding of Ethnicity in Uganda. He uses the words, „well detailed with adequate images, videos and illustrations.” This would suggest that, some 21st century students expressed interest and preferred learning through collaborative knowledge sharing on the Wiki. It might also have been that the shared resources were increasingly becoming believed as credible. History Education ought to transform teaching practices to accommodate the changing learner styles that enhance learner-centric pedagogies (Tarling & Ng’ambi, 2016) involving shared, active participation in learning about the past mediated by ETs- Wikis, viewed through the lenses of the present. Thus, in the context of this research, historicity was constructed through active participation and dialogical conversations shared between educator and students on the Wiki platform that focused attaching meaning to the past events. My argument is that innovative pedagogy in learning about the past would blend with the predominantly used teacher- dominated approaches reminiscent most history classrooms.

Analysis Example 2

Theme: Obtained multiple views and perspectives

Extract: „I used selected sources that gave me multiply information on the beliefs and practices of different tribes.” (B2)

Explanation: The above statement is indicative of the fact that using multiple resources in history understanding is viewed as a relevant source of evidence. This is substantiated in the students’ words, „selected sources give multiply information.” My argument is that since history as a discipline is highly subjective and mostly viewed with bias inherited from the historical, social background and content written in textbooks, obtaining multiple views and perspectives is deemed significant for improving the quality of History Education. Therefore, the statements suggested that the rationality for consulting multiply sources to enrich understanding of Ethnicity in Uganda was to obtain shared dialogical understanding obtained from multiply views and perspectives of the students

on the Wiki meaning-making environment. Authenticity of the topic, Ethnicity in Uganda, was achieved through utilizing multiple sources of evidence (textbooks in print and electronic formats) viewed from well-researched valid information. This was important in exhibiting awareness of the bias, myths and exaggerations about culture through cross-checking with different sources of evidence. These findings are evident in Gadamer (1989), Misgeld & Nicholson (1992) who illuminate the significance of interpreting multiple sources of information obtained from the past to achieve valid understanding as one of the strategies of exhibiting awareness of prejudices and biases.

Following data obtained from table 7.14 above, question 10 required the participants to choose by ticking activities that they got involved in that contributed to the history meaning-making process on *Ethnicity in Uganda*. Consequently, 19 participants responded through indicating their engagement in multiple activities on the Wiki platform deemed to improve their understanding. This is demonstrated by nine participants who made postings on *Ethnicity in Uganda*, ten responded to another member's question, two edited a member's contribution, six inquired about *Ethnicity in Uganda*, ten engaged in a conversation/argument on a Wiki, 12 commented on a member's post, four engaged in group discussions about *Ethnicity in Uganda*, four made reflections on the Wiki platform, three shared a video clip, six uploaded pictures on *Ethnicity in Uganda* and one shared web links. These findings revealed that all the participants actively participated in attaching meaning to the underlined topic under study, Ethnicity in Uganda, in one way or another. The historical hermeneutic notion of open questioning, answering (Porter & Robinson, 2011) through dialogical conversations between educator-students, student-student and student-community (elder/story teller) was evident at this step. Moreover, the potential affordances of the Wiki were also realized from the multiple views and consultations from the community such as neighbors, grandparents and elders who „told stories“ and provided insightful views on Ethnicity in Uganda. Subsequently, the above data was relevant in providing answers to research question 1 (see section 7.11). That said, question 11 required participants to state how the ticked activities highlighted above improved their understanding of Ethnicity in Uganda. The related responses are presented in table 7.15.

11). How did sharing the ticked activities highlighted above improve your understanding of Ethnicity in Uganda?	Themes formulated from data	Sub themes arising from the data	No. of participants 20	Salient comment
	Engaged in collaborative conversations on a Wiki to improve understanding		10	<i>„I got to learn from other members” feedback. Also, interacting and sharing with others made me to discover the different aspects of Ethnicity from the Wiki.”(B16)</i>
		Questioning, making arguments on the Wiki to enhance learning	4	<i>„When I engaged in an argument with other people on the Wiki my understanding on Ethnicity was improved because I received immediate feedback” (B9)</i>
	Got a chance to know more about culture through clarifying and editing posts on the Wiki		2	<i>„When I posted an Ethnic image on Buganda culture, members asked me to clarify; I was forced to think deeply about my post and edited it” (B18)</i>
	Though watching videos, uploading images on ethnicity on the Wiki		4	<i>„I was able to watch a video and uploaded an image on FGM; my understanding about this culture was greatly improved.”(B2)</i>

Table 7. 15: Findings from questionnaire question 11

Findings from table 7.15 revealed that out of the 20 participants, ten engaged in collaborative conversations on the Wiki to improve their understanding on *Ethnicity in Uganda*, with four falling under the sub-theme of questioning and making arguments on the Wiki to enhance learning, two indicated to obtain more understanding through clarification and editing own posts, while the remaining two participants beefed up

through understanding through watching videos and uploading images about ethnicity on the Wiki meaning-making environment. I have argued that, such results suggested students need to obtain understanding of *Ethnicity in Uganda* through active engagement in the various activities on the Wiki. This was evident in the dialogic conversation of questioning, discussions on the Wiki, clarifying and editing posts and visuals through watching and uploading images about *Ethnicity in Uganda*. These views were manifested in historical hermeneutic notion of fusion of horizon between the past and the present to achieve understanding. This suggested that the potential benefits of Wikis as the tools from the present, which include dialogical conversations between the past, present, watching historical videos, images were relevant in facilitating students understanding of the past. Consequently, the above questionnaire findings were collaborated with interview sentiments. To that end, Lincoln & Guba, (2000) argue that using multiple methods and sources of data collection enhance rigor in interpretive research.

7.8.1 Interview findings at step 3: making shared interpretations of history meanings

Interview sentiments were identified in relation to students' contrasting views (deviant cases) about cultural practices, as one student asserts that:

„African cultural practices like FGM should go on. Africans have had their cultures and Europeans have since called them, barbaric; Erosion of African culture is indirect colonialism. If a community practices male and female circumcision then it should go on with it.”(A33)

While another retorted that

„Interviewed 4 sabiny students and also attended the Seska Sebei (Sabiny) cultural meetings at the freedom square MU; I wanted to aligned what is documented in books and what the Sabiny have to say. (A35)

Contrary to the students' earlier views of banning the practice of FGM as it is seen as barbaric and thus disrespects human rights (see section 7.8.1), A33's statement above suggested that such cultural practices should be preserved especially if they were accepted by the community. He used the words, „Africans have had their cultures and Europeans have called them barbaric; indirect colonialism.” The statement was indicative of the

importance of enhancing liberty as communities make their own cultural decisions and Africanisation (African cultural traits). However, it's worth mentioning that, on 10 December 2009, the Ugandan Parliament passed a law banning the practice of FGM and the practice has since been recognized as a violation of human rights. Thus, the position I adopt here is a need for continuous sensitization of the communities about the ills and effects of such cultural practices.

Closely aligned to the views above, student A35's statement suggested the use of interview as a primary source of evidence. He used the words „interviewed 4 sabiny students; attended their meetings to align what is written in books and what the sabinys“have to say.“ The sentiments implied the relevancy of analyzing and making interpretation of the past by comparing oral testimony with written records to reach understanding. Following the variation in data from the interview findings, observational findings were taken to understand the interactions of the participants as reflected in section 7.9.2.

7.8.2 Observational findings at step 3: to make shared interpretations of history meanings

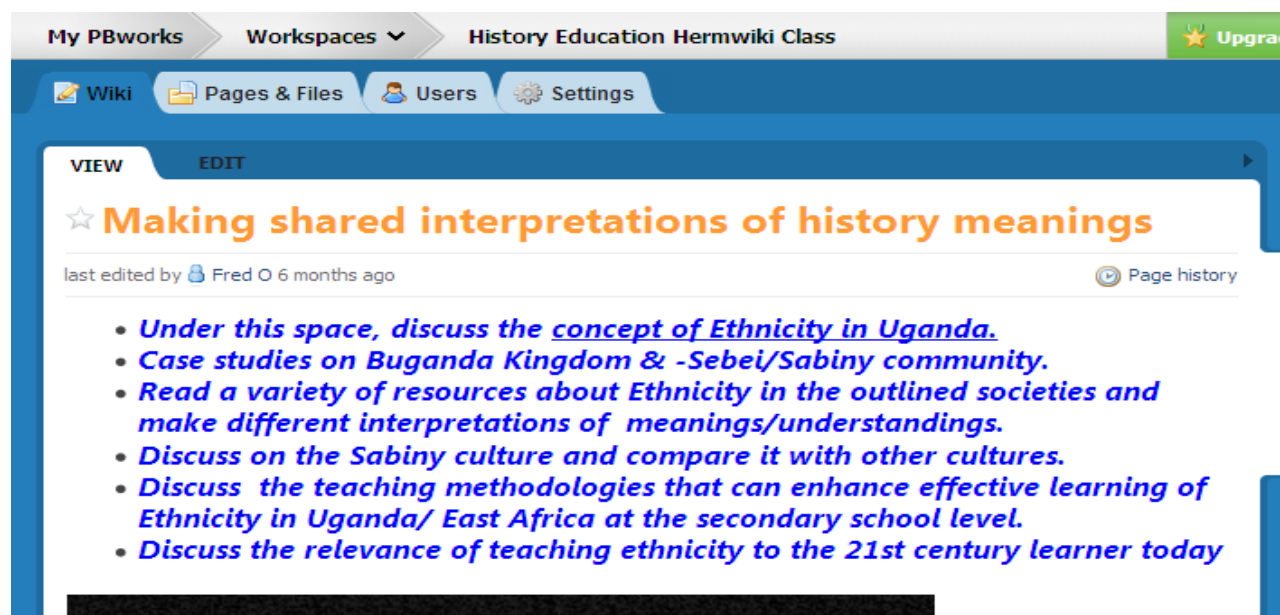


Figure 7. 4: Observational Findings at step 3: Making shared interpretations of history meaning

Figure 7.4 presents the visual representation of making shared interpretations of history meanings. This is illuminated through the educator's task reflected on the Wiki meaning-making environment above. Consequently, figure 7.4 was substantiated with a tabular representation of the pedagogical activities observed on the Wiki learning environment presented in figure 7.16.

Educators' activity	Students' activity	Description/Students' responses in themes	No. of participants	Salient comments
Tasks participants to discuss the concept of Ethnicity in Uganda (see full details in figure 7.4 above)	Consulted different sources of evidence, posted pictures, videos and comments on Ethnicity in Uganda Made collaborative interpretations of the underlined case study through commenting, questioning and responding to peer's posts with supplements from the educator.	Data from students' responses were categorized in to themes as follows:		
		Conceptualizing ethnicity	7	<i>An ethnic group is defined as a social group that shares a common distinction in form of culture, language, religion, norms and beliefs (C9)</i>
		Use interactive methods to teach ethnicity at the secondary school level	6	<i>I would use interactive methods like group work, field study, case study; project and role play to teach the topic. This is because they are learner centered (C10)</i>
		Ethnicity helps learners to know their origin and cultures	8	<i>In this context, ethnicity gives each individual of 21st century a chance to know each belief, practices, norms and customs of different tribes through learning/teaching (C11)</i>
		Images, videos uploaded on ethnicity- five videos and pictures from the Sabiny Ethnic group and three images from Buganda kingdom	8	(see Appendix I)

Table 7. 16: Participants activities at step 3: making interpretations of history meanings

Observational findings in table 7.16 were categorized and coded in to themes arising out of the students' responses as follows: out of the 12 participants who engaged with the principle of making interpretations of history meanings observed on the Wiki, seven conceptualized ethnicity, six revealed that they would use interactive methods to teach *Ethnicity in Uganda*, seven revealed that ethnicity helps learners to know their origins

and cultures, while eight uploaded images and videos on ethnicity, particularly from Buganda kingdom and Sabiny. However, I observed that one student domineered and posted detailed contributions in response to the educator's task. On close interrogation and asking him why he did that, the student expressed a lot of interest in using ICTs to facilitate understanding in the classroom room. Thus in following table 7.16, I made an analysis of two excerpts as these particularly contained words and phrases that would be relevant to answering the research questions.

Analysis example 1

Theme: Ethnicity helps learners to know their origins and cultures

Extract: „*In this context, Ethnicity gives each individual of 21st century chance to know each belief, practices, norms and customs of different tribes through learning/ teaching.*”

Explanation: In the context of this research, students were able to construct various understandings and interpretation of the concept, Ethnicity in Uganda, as earlier highlighted. While pictures, videos and images (in reflection of the past) shared among participants proved useful resources in clarifying students' understanding, these should be applicable to the students' life and needs. This student argued that the studying, „Ethnicity helps students of the 21st century to know each, belief and practices”. This is particularly significant in helping students establish identities and appreciation of each other's cultures. In other words, in terms of responses to the research question, historicity should be constructed in relation to the needs of the contemporary situation. Given that analysis example 1 captured the content knowledge to be taught; Ethnicity in Uganda - the following example illuminates how such content should be taught to enhance learning.

Analysis Example 2

Theme: Use interactive methods to teach Ethnicity at the secondary school level

Extract: „*I would use interactive methods like group work, field study, case study; project and role play to teach Ethnicity in Uganda. This is because they are learner centered.*”

Explanation: The above sentiment postulated that student generated approaches could potentially facilitate in-depth learning about the past. Using multiple approaches in

attaching meaning to the past could enhance democratization of learning about the past and also suit students' stages of development (Roberts, 2010). For example, the student gave examples of „field study, case study and role play to enhance learning“. This was relevant for two reasons: firstly, for providing insights and understanding on how students (pre-service teachers) can actively participate in a shared constructing of meaning about the past and thus their likeliness to use the same methods with their future students. Secondly, such approaches capture imagination, wonder and excitement as the students are practically exposed to the community (field and case studies) in which they live, thus enhancing relevancy in learning history. The historical hermeneutics philosophy attested to an engagement with dialogical approaches that involved open-ended questioning and answering between educators and students focused on linking the past to the present (Porter & Robinson, 2011). Following the presentation of results, it was evident that students successfully and actively engaged in the collaborative construction of history meanings mediated by the Wiki meaning-making environment.

Having said that, the following sections present findings on preconceptions of History Education, reflections and framing history, and open questioning and clarifications presented in a way that affords answers for the research questions.

7.9. Questionnaires findings at step 5: to support open questioning and clarifications

Open questioning and clarification corresponded with the questions (see appendix B) regarding the skills identified and methods suggested to facilitate the learning of history under Ethnicity in Uganda. This was reflected in questionnaire questions 12, 13, 14 and 15.

Question 12 required the participants to indicate by ticking the skills obtained during their engagement with the history meaning-making process on the Wiki. Findings from question 12 revealed that all the 20 participants acquired one or two skills during their engagement with the history meaning making process on the Wiki platform. For example, 14 participants acquired the skill of critical thinking/ thinking historically, six acquired

the problem solving skill, twelve acquired the collaborative/ team building skills, eight acquired the Information Literacy skills, six acquired typing/ writing skills, seven acquired reflection skills and nine participants were revealed to have acquired the analytical skills. This implies that, having engaged with the Wiki for a period of time, the students became confident in using the platform and could therefore approach the use of similar emerging technology platforms with confidence. Given the skills acquired during engagement on the Wiki platform, the proceeding question, question 13, required participants to explain how they obtained the above identified skills. The salient qualitative responses to question 13 are reflected in table 7.17 below (see Appendix B).

Consequently, two extract examples were identified for analysis on the basis that they were well worded and aligned to providing answers to the research questions.

Analysis Example 1

Theme: Through consulting and learning from other members

Extract: *„I gained collaborative skills through reading other members“ posts, commenting about them; in the process we negotiated and collectively agreed on the concept of Ethnicity“ (B6).*

Explanation: The above statement is indicative of the fact that students gained skills during their engagement with construction of history meanings on a Wiki platform. For example, the student used the words and phrases, „I gained collaborative skills through reading other member“s posts, commenting about them and we negotiated.“ This implied that there was a dialogical process that involved reading members“ posts, adding and editing each other“s content and consultations to come up with agreed decisions. This was relevant in history pedagogy as obtaining true meanings in history required a collaborative dialogical effort of obtaining multiple views and negotiated meanings. In essence, therefore, utilizing constructions of meanings on the Wiki platform afforded students“ skills in reading, listening to peers, collaborative and analysis skills, which are vital for learning in the 21st century. Thus, the historical hermeneutics theory attests to the skill of reading, listening to what the text and the „other“ has to say (suspend our own opinions) if we are to obtain tentative truth given the available evidence (Gadamer, 2004).

13).Briefly explain how you obtained the above mentioned skills?	Themes obtained out of data	Sub-themes arising from data	No. of participants	Salient themes
	Through consulting and learning from other members		10	<i>„I gained collaborative skills through reading other members“posts, commenting about them, in the process we negotiated and collective agreed on Ethnicity“(B6)</i>
	Reading, comprehending members“ comments/critiquing them		3	<i>„I obtained analytical skills through looking at different sources of evidence and making comparisons between them to come up with my own“(B13)</i>
		Thinking historically	4	<i>„I acquired history thinking skills through reading online literature on Ethnicity in Uganda, critically thinking and interpreting what I read“(B16)</i>
	Hands on experience with typing posts		2	<i>„I gained the experience of typing since history is advancing as a technology.“(B2)</i>

Table 7. 17: Findings from questionnaire question 13

Analysis Example 2

Theme: Thinking historically

Extract: *„I acquired history thinking skills through reading online literature on Ethnicity in Uganda, critically thinking and interpreting what I read.“(B16)*

Explanation: The statement postulated the importance of reading multiple sources of evidence, „online literature“ and making interpretations to come up with authentic history

meanings. Thus, the student asserted that he acquired history-thinking skills through „critically thinking and interpreting what he read“. I argue that the unique potential of history pedagogy is to engage students in reading and exploring multiple sources of evidence about concepts of the past, and to analyze them, make inferences and draw conclusive judgments that would absolutely enhance historical thinking. Drawing on the historical hermeneutics philosophy, analyzing the past (tradition) through multiple perspectives while focusing on the fusion of horizon between the past and the present would yield into thinking historically.

Based on the skills acquired above, the next question, question 14, required participants to indicate by ticking the appropriate teaching methods that they would use to facilitate the learning Ethnicity in Uganda in a history lesson. Responses to question 14 indicated that participants would engage with history teaching methods interchangeably. Twelve would use story telling/lecture method, 13 would use group discussions; two Inquiry methods, two discovery methods, six case study methods, 12 project-field visits to historical sites, and nine would use role play/drama. These were further probed to explain why they would use the above-mentioned methods to facilitate the teaching and learning of *Ethnicity in Uganda* (see table 7.18)

15). Briefly explain why you would use the above mentioned methods facilitate the teaching and learning of Ethnicity in Uganda?	Themes arising from formulated data	Sub-themes arising	No. of participants per method	Salient comments
	Case studies to enable students gain an in-depth understanding of a particular society		6	<i>„I would use case studies. For example, about the Nilotics ethnic group so as to enable students to understand the economic, social, political set up so as to make comparisons with theirs.“ (B8)</i>
	Field visits to get a real view of the past		5	<i>„Through field visits to the museum, I would bring the past closer to the learners.“ (B11)</i>
		To engage with history practically	2	<i>„Through study visits to historical sites like Uganda museum events of the past are viewed practically“ (B6)</i>
	Story telling/lecture to introduce new concepts		6	<i>„I would tell a story about the Sebei culture to arouse interest my history class.“ (B16)</i>
	Group discussions enhance shared learning and debate		12	<i>„I would use the group discussion to enable students to express their views and criticisms while learning from each other.“(B12)</i>
	Role play/drama to bring empathy about the past		5	<i>„Acting out events of the past would make my learners get a feel about FGM cultural practice for example“ (B7)</i>
	Inquiry methods to enable research about the past		2	<i>„Inquiry in to the past by reading different text books improves students“ understanding (B17)</i>
		Discover history on their own	1	<i>„I would let my students explore and discover Ethnic practices on their own so as to understand history better.“ (B9)</i>

Table 7. 18: Findings from questionnaire question 7b

The findings from table 7.18 revealed that methods of teaching history were used interchangeably depending on the learning goal that the educator wanted to achieve. Good history teachers are knowledgeable about content, use dialogic learning approaches and encourage historical inquiry in which students rather than the educator do the work (Bourdillon, 1994; Roberts, 2010). Moreover engaging with learner-centric methods of learning history enable students to empathize about how people in the past may have felt and thought. Perhaps the most rewarding way to teach history to the younger generation today is to encourage them to find out for themselves about the past from historical evidence (Stanford, 1994). Therefore, to enhance historical understanding, history pedagogy should provide students with a more realistic and practical atmosphere to nurture dialogic learning methods.

That said, the following section explicates on how the above findings responded to the research question 1: *How is historicity constructed on a Wiki platform among pre-service teachers at Makerere University?*

7.10 A summary of responses to research question 1 as evident in study findings above

The above findings responded to research question 1 as follows. Findings above suggested that historicity was constructed through active engagement in doing history through making sense to images, videos, pictures and texts obtained from the past. For the purposes of this study, doing history was described as actively and collaboratively sharing images, videos, and texts from the past and making sense of them through dialogical conversations on the Wikis (as lenses from the present). Doing history in this sense therefore attracted students to participating in the co-construction of the past by making use of ETs (Wikis). Also, data presented above revealed that in order to make learning about the past relevant to learners, one must link history to students' interests and what they know in the present to move back to the past, i.e. reviving heritage and cultures. Appreciation of each other's families, cultures could bridge a sense of unity and brotherhood other than diversity. This might possibly reduce on the problem of cultural conflicts in the present situation and, with a projection of that understanding on what the future might be like. Historicity was also constructed through dialogical learning

approaches such as group discussions, field visits, and questioning and answering as conversations between students and teachers with a focus on the past and the present, thus aligning students to historical thinking. These findings were significant in that they provided shared negotiations and insights that served as a snapshot of how students made sense of the past at the Makerere University context at a particular point in time.

Having presented a summary of responses to answer research question one, the proceeding section provides findings under the highlighted theme in response to research question 2: *How is Authenticity of History meanings constructed on a Wiki?*

7.11 Authenticity of history meanings collectively constructed on a Wiki platform

To obtain responses to research question 2, I engaged with the revised design principle to discover preconceptions about History Education. The rationale behind this engagement was to exhibit an awareness of P&Bs inherited from historical, cultural backgrounds that prohibited valid understanding of History Education. In identifying students' findings on the preconceptions of History Education in Uganda, I advocated for transparency by revealing my personal preconceptions prior to interacting with my students. It was thus significant to explore and view History Education as a fusion of horizons between myself (experienced teacher-educator representing the past views and experiences) and my participants (pre-service teachers representing the present). This was supported by the historical hermeneutic view that, in order to understand another, one must first understand one's self, and that gaining understanding consists; remaining open to meaning, predicting and early understanding of what has been said (Gadamer, 1989; Turner, 2003).

Therefore, in the proceeding section, I share my own pre-understanding of history teaching and learning in Uganda with a reflection highlighting the point of agreement and disagreement with participants' findings focused on achieving in-depth understanding of the phenomena.

7.12 Personal blog reflections in the pre-understanding of History Education in Uganda

I reflected and shared my pre-understanding of History Education in Uganda on my personal blog (see appendix D). Keeping a record of my pre-understanding, personal characteristics and biases were significant in two ways. Firstly, it enabled me to develop a clear understanding of my personal pre-understanding of History Education prior to my engagement with the participants. Secondly, by exhibiting awareness of my personal P&Bs on History Education, I was able to manage these as much as possible so that they did not influence my research and findings (see section 7:4, analysis example 2). To this end, Gadamer advocated for awareness of one's own bias, so that the texts (participants' views) so that the reader could let the texts talk to him, thus asserting their own truth against one's fore projections (Gadamer, 1989).

My personal reflections about the pre-understanding of History Education are similar to the ones earlier shared at implementation 1 (see chapter 6; section 6.3). Therefore, having exhibited awareness of my personal pre-understandings about history teaching, I used this knowledge to help me interact with my participants through questionnaire responses, interview proceedings and observational activities on the Wiki platform. I have argued that, I was always open to learn something new about history teaching as seen through the participants' eyes in the process. This was significant as, my horizon about teaching history would widen and I would gain a more thorough understanding of this subject. Consequently, questionnaire questions 20a, 20b, 21a, and 21b catered for preconceptions about History Education as highlighted in the proceeding sections.

7.13 Questionnaire findings at step 4: preconceptions about History Education.

In correspondence with my own preconceptions stated above, questionnaire question 20a required participants to tick the appropriate item indicating how they shared their pre-understanding of history pedagogy in Uganda on the Hermwiki platform. Responses to this question were obtained from 20 participants as follows: eleven participants ticked the item, through reflecting on the current teaching of history at the secondary school level; five ticked the item through engaging in conversations and agreement with other members on the choice of historical information posted on the Wiki, only two ticked the

item through referring to the lower secondary Social Studies reformed curriculum uploaded on the platform, while the remaining two ticked the item through listening to the uploaded videos and related texts on teaching history in the 21st Century. The findings to this question suggest that most students shared their lived experiences about the current teaching of history at the secondary school. Drawing on the above responses, question 20b probed students further by tasking them to explain how their choice of response ticked above was achieved or not achieved. Table 7.19 presents the qualitative findings in response to the underlined question.

20b) Briefly explain how your choice of response mentioned above was achieved/not achieved	Themes formulated from the data	Sub-themes arising from data	No. of participants out of 20	Salient comment
	Teacher-dominated approach		3	<i>At the secondary school, some teachers still dictate notes to students throughout the history lesson. I find this boring. If they could use interactive methods with technologies like Wikis I believe this could interest the learner. " (B18)</i>
		History is examination orientated	2	<i>„History teaching in secondary school highly focuses on the Examination oriented history syllabus with learners memorizing history facts to pass Examinations"(B1)</i>
	Use diverse teaching methods of teaching history in the 21 st century		2	<i>Different views of history teaching in the 21st century with methods like storytelling, use of question and answer, discussions, role play and case studies integrated with ICTs (B4)</i>
		Shared comments about the teaching history on the Wiki	7	<i>„I sought clarifications on the Wiki through asking questions on FGM and its existence among the Sabiny to rule out bias"(B9)</i>

	Lower Secondary Social Studies reforms focus on learner needs		2	<i>When I looked at the Lower Secondary Social Studies Reformed Curriculum, it presents learners what is relevant to their experience in their environment in Africa and related contextual events. (B2)</i>
	Should be reflective at the end of each lesson		1	<i>Whenever a good teacher teaches, he/she has to make reflections on the teaching and learning process after the history lesson so as to ascertain his/her strengths and weaknesses and work upon them effectively (B10)</i>

Table 7. 19: Findings from questionnaire question 20b

From table 7.19, only 17 out of the 20 participants responded to question 20b, with two leaving the question blank while the remaining one response seemed irrelevant to the question asked. Consequently, the findings were aligned to lived experiences of the students as follows: five out of 17 participants revealed that history teaching in Uganda is still teacher-centered, with two falling under the sub-theme of history being marred by the examination-orientated syllabus. Moreover, nine of the 17 participants made suggestions for improving the teaching and learning of history through the use of dialogic approaches with seven falling under the sub category of shared comments about the teaching history on the Wiki platform (collaborative bias). Two participants referred to the Lower Secondary Social Studies Reforms focus on learner needs. Given the above findings, I infer that students shared their prior knowledge about the current teaching of history, while suggesting solutions of improving the pedagogical process. Thus, I extracted two qualitative statements as examples for analysis from the table above because they contained phrases and words that corresponded to research question 2 (constructing of authenticity on the Wiki).

Analysis example 1

Theme: Teacher- dominated approach

Extract: *“At the secondary school, some teachers still dictate notes to students throughout the history lesson. I find this boring. If they could use interactive methods with technologies like Wikis I believe this could interest the learner. I have really enjoyed making comments with peers on the Wiki”* (B18)

Explanation: The student drew on his lived experience as a student to share his preconception of history teaching. For example, he used the statement, „at secondary school, some teachers“ still dictate notes.“ This implied that the teacher was an authority who transmitted content by reading aloud notes in the class. The student argued that such approaches were „boring“ and he acknowledged the importance of engaging with „interactive methods“ and „technologies“ that „would interest the learner.“ This sentiment was relevant for two reasons: firstly, the use of phenomenological experience to suggest a solution of embracing technologies such as Wikis to initiate collaborative learning with peers. Secondly, engaging with dialogical approaches in teaching history enhanced

conversations between students and educators that could facilitate validation understandings. Subsequently, integrating technologies in the pedagogical process affords shared construction of history meanings that would arouse students' interest in the pedagogical process. This is reflected in the student's sentiment, „enjoyed making comments with peers on the Wiki.“

Analysis example 2

Theme: Shared comments about teaching history on the Wiki

Extract: *‘I sought clarification on the Wiki through asking questions on FGM and its existence among the Sabiny to rule out bias.’ (B9)*

Explanation: The above sentiment was indicative of inquiry through searching for meaning of the past by asking questions about a given phenomenon. For example, the student used the phrase: „I sought for clarification on the Wiki.“ Moreover, open asking, inquiry and constructing comments on the Wiki yielded into collaborative bias (shared preconceptions) focused on ruling out individual bias. Gadamer argued for exhibiting awareness of prejudices and biases of a given phenomenon as an essential part in the process of interpretation (Gadamer, 2004). The findings were in agreement with the literature that argues for the integration of ETs in the history classroom with potential benefits of interactive peer discussions under the guidance of the teacher (Haydn et al., 2015). Such pedagogical approaches are viewed critical in today's learning of history because they afford a process of reaching students' thinking through exploiting technologies (Wikis) that support shared P&B about history teaching and learning in Uganda.

Given the qualitative findings and descriptions of the pre-understanding of History Education in Uganda, I was able to analyze the tensions between the pre-existing views on history teaching and students' lived experience of constructing history meanings on the Wiki meaning-making environment. This therefore did not lead me to suggest that my personal reflections were not unique nor were they original as they bore some similarities and differences to the students' pre-understanding as presented in table above. For example, similarities such as the persistent challenge of history teaching characterized by

teacher-centeredness was accruing from detailed examination-oriented history syllabus leading to suggestions for improvement by integrating ETs with dialogic learner centered methods of teaching. However, the suggestions and recommendation for improvement of learning about the past by embracing ETs could be explained in two ways. Firstly, these could have resulted from P & B inherited from the students' engagement with shared construction of history meanings on the Wiki platform. Secondly, the suggestion could also be attributed to the fact that today's students have grown and lived with technology (Prensky, 2001) and thus their pedagogical approaches ought to be different. Given the similarities above, the preconceived differences were highlighted in the „outlier response“ that proposed a need for teachers' reflectivity at the end of each lesson (see table 7.19), and my own suggestion to engage with learning approaches that reflected on the past to solve real life problems. Therefore, by highlighting the similarities and differences in our pre- understanding of History Education; I became open to new meaning and my horizons expanded (Turner, 2003) as I gained more understanding of the topic under study. In support of this, Gadamer postulates that we seek to inquire about what is common to all modes of understanding by responding with openness to the unexpected and a willingness to embrace new ideas from others (ibid, 2003).

Consequently, questionnaires responses were further corroborated with qualitative interview sentiments. As mentioned earlier under the methodology section in chapter 4, the interviews undertaken were open-ended and conversational in nature to create dialogue while exhibiting awareness of my own pre-understanding of the underlined topic under study. Throughout the interviews, I attended to changes in speaking voice facial expressions and gestures (ibid, 2003). Also, I engaged in continuous analysis and interpretation of the participants' comments, while seeking for clarification by questioning and probing deeper explanations from the multiple sets of data collected. These actions were manifested under Gadamer's notion of reaching understanding by being open and listening to what the other has to say. To that end, Stanford (1994) and Roberts (2010) argue that understanding in history is reached by a careful and unprejudiced scrutiny of evidence and listening to multiple views as source evidence .

7.14 Interviews findings at step 4: preconceptions about History Education.

Interview sentiments at step 4 reflected two themes: examination-oriented approach to learning and suggestions for using ICTs to improve the pedagogical process. Thus, I identified salient interview statements from two interviewees because they were well worded and exhibited students' prior experiences.

„History teaching in Uganda's secondary schools" examination orientated; most teachers do not carry out to research to widen their knowledge scope and update their classroom notes. It is not surprising that some teachers still use the notes that their teachers gave them while they were still students" (A30).

While another who proposed the use of ICT in history teaching retorted that:

„Learners find history as a boring and theoretical subject because learning is confined to the classroom and viewed as factual with no interpretation and relation to practical examples. Teachers should encourage visual representation of the past by initiating ICTs to form imaginations of historical pictures, videos and images that would link the past to the present. (A35).

The sentiments were in conformity with the earlier preconception about History Education earlier presented in the context of this study. For example, the students' sentiments such „examination oriented, boring, theoretical with no practical examples, no interpretation, visual representation of the past with ICTs." These sentiments were indicative of the need for teachers to engage students in collaborative interpretation of school history other than taking history as factual. Thus, my argument is focused on embracing dialogical approaches in teaching history mediated by ETs, such as Wikis, that would enhance collaborative construction of history meanings. Moreover, particular viewpoints constantly in a process of formation are always shaped by our past and our awareness of the present tools (Turner, 2003). That said, interview sentiments were further corroborated with observational findings in reflection of the preconceptions about History Education, as presented section 7.15.

7.15 Observational findings at step 4: preconceptions about History Education



Figure 7. 5: Observational findings at step 4: preconceptions about History Education

Figure 7.5 above presents the educator task that required participants to listen to the uploaded videos about teaching history in the 21st century (at an international scene) and share what they thought about the current teaching and learning of history in Uganda on a Hermwiki platform. As a form of scaffolding responses to this question, the educator directed the students to refer the current history O level curriculum and Proposed Lower Social Studies Curriculum uploaded on the Wiki site. In response to the educator task, participants engaged in dialogical conversations about the current teaching of history in Uganda while questioning and responding to each other's questions with compliments from educator, as reflected in table 7.20 below. This attests to the historical hermeneutics notion of dialogue through openness to the meaning of another person (Kogler, 1960;

Porter & Robinson, 2011). Consequently, observational findings from figure 7.5 were substantiated and supplemented with qualitative statements presented in table 7.20 below.

Educators' activities/task	Students' activities	Description/ student responses in themes arising from data	No. of responses over 20	Representative comment
<p>Uploaded videos aimed at presenting different views of teaching history in the 21st century.</p> <p>Requested participants to read, comment, question and respond to each other's posts.</p> <p>Educator enhanced dialogue through supplementing students' comments and responses.</p>	<p>Read and referred to the two uploaded history syllabi</p> <p>Shared their personal views on the underlined topic while also commenting and questioning each other's posts.</p>	Students' responses to the educator task were coded, categorized in to themes summarized in terms of challenges, highlighted in the teaching of history and suggestions for improvement <i>Challenges in History Education.</i>		
		Teacher-centeredness with focus on the examination oriented syllabus	4	<i>History learning in secondary schools is teacher centered at the expense of students centered which at times proved the teachers fountain-ship in imparting knowledge which is not the case when it comes to learning (C9).</i>
		Suggestions for improvement History Education engagement with learner centered approaches and visit historical sites	3	<i>Learning in the 21st century ought to be more learner-centered so that the learner needs are taken in consideration and also that learning is more real and practical to solve day to day problems (C10).</i>
		Train teachers to embrace the use of ICT to	5	<i>With coming in of modern equipment like computers, projectors, teachers should go for refresher</i>

		visualize the past		<i>courses and trainings that can help them on how to integrate such materials in the teaching and learning process (C11).</i>
		History updates on the past events	5	<i>History is a subject that keeps on updating us in the world. One is able to know everything though he or she was not present by that time when the event happened (C12).</i>

Table 7. 20: Participants' activities at step 4: Preconceptions about History Education

Observational findings in table 7.20 were in reference to the educator and participants' activities. The rationale for this was to establish the dialogical conversations between the educator and students that would perhaps yield in to collaborative P&Bs about the teaching of history. Moreover, following table 7.20, the responses from the educator's task were sub-divided in to two to cater for the challenges and suggestions to improve in History Education. The challenges were highlighted as teacher-centered methods as still reminiscent in history classrooms mainly because of the detailed history syllabus. The suggestions for improving History Education included: training teachers to embrace ICTs in teaching and learning, using learner-centered methods like case studies and field trips, and reflecting on the relevancy of the past during history lessons. Given observational findings from students' responses, a new dimension and idea (understanding) of training teachers to embrace the use of ICTs was highlighted, which was not echoed in any of the results presented above. In support of this view, the historical hermeneutics philosophies assert that differences, strangeness and variations all produce grounds for historical understandings (Porter & Robinson, 2011). Moreover, this view is reflected in the student's words: „*teachers should go for refresher courses and trainings that can help them on how to integrate such materials in the teaching and learning process.*“ This statement suggests a need for teacher's continuous professional development through refresher courses and trainings on the integration of ICT in History Education. This is important in helping teachers improve their practices with a focus on improving the quality of learning.

Consequently, the above findings and analyses do suggest that history teaching in Uganda is characterized with dominant teacher-centered teaching approaches aimed at accomplishing the detailed examination-orientated history syllabus. The position adopted here is that teacher-centric methods be blended with dialogical approaches to learning about the past mediated by ETs in a given pedagogical context.

Having presented findings about the preconceptions of History Education, questionnaire question 21a required participants to indicate by ticking the sources of historical information that were consulted and interpreted to validate/enrich their understanding of Ethnicity in Uganda. The responses to this question were as follows: eight out of 15 participants used history text books, six used journal articles, four newspapers, five uploaded videos, six photographs and images, five visited field visits to historical sites/museums, and four consulted an elder, while one participant indicated other and specified the use of Bukedde television. These findings implied that each participant used more than one source of information to enrich their understanding of history meanings. However, I observed a contradiction in the findings and the literature earlier highlighted - students were still heavily using the physical libraries to borrow textbooks to read, despite the existence of electronic media articles and journals. The contradiction created in this finding was that all the study participants aligned to engaging in dialogical conversations on social media platforms (see table 7.20), and so one would imagine that they would consult Internet sources rather than borrow books from the library. This finding was significant in helping me redefine my understanding of the nature of students in my context in two ways. Firstly, the students seemed to use social media for non-academic purposes. Secondly, they could comfortably work with a blend of print media (text books) and electronic media (journal articles). That said, in order to achieve a much deeper understanding of the multiple sources of historical evidence highlighted above, questionnaire question 21b required participants to explain how the above-mentioned choice of responses was achieved or not achieved. The qualitative findings are presented in the table 7. 21.

21b) Briefly explain how your choice of response above was achieved or not achieved	Themes formulated from the data	Sub-themes arising from the data	No. of participants per source	Salient comment
	Visits to historical sites to obtain a practical real life understanding		9	<i>„I visited the Uganda Museum and collected useful information; the historical artifacts I viewed are still vivid in my mind. I also compared what I visually saw at the museum with what has been written in history textbooks about Ethnic tribes “(B4)</i>
	Referred to history textbooks in comparison with other sources to obtain true historical meanings	Listened to the uploaded videos on teaching history in the 21 st century	14	<i>„I read a number of history texts books and realized that these reported different issues on Ethnicity in Uganda. I decided to complement my reading with journal articles from the internet to enrich my understanding further.”(B2)</i>
	Read newspapers to supplement the knowledge obtained from the journal articles		3	<i>„I read a New Vision, a leading local newspaper in Uganda on Independence day ; key insights about Ethnic tribes in Uganda were highlighted” (B15)</i>
	Watched informative education programmes on television		1	Through reading those sources about Ethnicity. I listened to the television programme (B18)

Table 7. 21: Findings from questionnaire question 21b

From table 7.12, nine out of 15 participants indicated visits to historical sites to obtain a real life/practical understanding, 14 referred to history textbooks in consultation with other sources, with a sub-theme of listening to uploaded videos about teaching history in 21st century, three read newspapers supplemented with knowledge from journal articles, while only one participant watched the informative education programmes on television. The findings suggested that students consulted more than one history source (history textbooks, video clips, newspaper articles, and visits to historical sites), made comparisons of the content therein, and came up with final interpretations and inferences thus reaching historical understanding of the topic under study. This manifests in the historical hermeneutics notion that argues for utilization of multiple perspectives and interpretation to reach true understanding of the past (Gadamer, 2004). Therefore, I analyzed an extract example from table 7.12 that illuminated using a primary source of evidence in trying to obtain meaning:

Analysis Example:

Theme: Visits to historical sites to obtain a practical real life understanding.

Extract: *„I visited the Uganda museum early this year and collected useful information; till now the historical artifacts I viewed are still vivid in my mind. I also compared what I visually saw at the museum with what has been written in history textbooks about ethnic tribes’*

Explanation: According to that statement, the student engaged and two sources of evidence to facilitate her understanding about the topic under study. She used the phrase: „I visited the Uganda museum” and „compared what I visually saw at the museum with had been written in history textbooks about ethnic tribes.” This sentiment was important for two reasons: firstly the relevancy of analyzing both primary (Uganda Museum) and secondary (textbooks) sources of evidence was shown in gaining authentic understanding about what actually happened in the past. Gadamer’s belief that advancing human understanding lies on a combination of both the theoretical and practical aspects (Gadamer, 2004; Gander, 2015), supports this student’s view. Secondly, the student attached importance to practically engaging with the „historical artifacts” that facilitated

imaginings thus enhancing an in-depth, vivid understanding about the past. Given the above findings, I argue that the process of validating or authenticating history can best be facilitated by obtaining and interpreting evidence from multiple views and sources, for example, participants' consultation from multiple sources, primary sources (consultation from elders/story tellers and visits historical sites like museums) and secondary sources (journal articles, history textbooks, historical video clips). Also the authenticity of the history meanings (Ethnicity in Uganda) was achieved through a question and answer session between the students under the guidance of the educator enabled under the mediation of the Hermwiki platform. That said, the proceeding section provides a summary of responses to the research question 2.

7.16 A summary of responses to research question 2, as evident in study findings above

In a nutshell, the response to research question 2 was based on the above findings (data sets from questionnaires, interviews, observations and personal blog entries) that indicated that authenticity was achieved through exhibiting an awareness of personal P & B before the dialogical construction of history meanings (Ethnicity in Uganda) on the Wiki platform (see table 7.5 and figure 7.5 above). Moreover, authenticity of history meanings was also achieved through reading and interpreting multiple sources of historical evidence, such as history textbooks, journal articles, historical video clips, television programmes, field visits to historical sites and consultation from elders. Findings further suggested that history understandings were validated through engaging with dialogic questioning, answering and responding to peers supplemented by the educator on Hermwiki platform.

Having presented the responses to research question 2, I will proceed to reflect on constructing history meanings on a Hermwiki platform reflected under the revised principle, to support reflections and framing history.

7.17 Step 6: to support reflection and framing history

The philosophy behind this step was guided by the need to document students' experiences in the process of constructing history meanings on the Hermwiki platform. This was achieved through reflecting on the possibilities and challenges while also suggesting ways of improving the pedagogical experience as illuminated in figure 7. 6.



Figure 7. 6: Observational findings at Reflections and Framing History

Following figure 7.6, questionnaire questions, 17a, 17b, 22a, 22b and 23 required students to make a reflection in form of sharing personal experiences of engaging with history meanings on the Wiki platform.

7.18 Questionnaire findings at step 6: reflection and framing history

Reflections at this step were done in form of possibilities, challenges and ways of improving the history meaning-making process on the Hermwiki platform reflected in the qualitative findings summarized in table 7.22.

Themes formulated from the data	Sub-themes arising from data	No. of participants out of 20	Salient comment
Improved knowledge about Ethnicity in Uganda		13	<i>„My knowledge about Ethnicity was improved as I read members" posts about their different cultures "(B17)</i>
	Appreciation and respect for cultural heritage	6	<i>„I was personally able to understand the Sebei culture of FGM and why they carry it out. I now appreciate and respect different cultures and heritages" (B20)</i>
Improved digital skills		5	<i>„I gained digital skills, confidence in typing and sharing ideas on the Wiki"(B10).</i>
New approach to learning history was exciting and enjoyable		10	<i>„I have found my engagement on the Wiki enjoyable and exciting because I participated in making meaning to the past"(B11).</i>
	Improved social identity and learning online collaboration	10	<i>„I got to know many history students in different years of study which could not have been possible in the physical space "(B4)</i>
Obtained historical thinking skills		4	<i>„I read a number of history sources about Ethnic tribes in Uganda and each was saying something different. I had to analyze all and think about the history content to post on the Wiki." (B7)</i>

Peer reviewed comments on the Wiki		10	<i>„I posted responses to answer participants” questions about my work; members corrected me where I had gone wrong. I „revenged” by adding a comment to another member’s work and also removed content that I thought was not making sense at all.” (B18).</i>
Practical visits to historical sites were expensive	Difficult to obtain information from Elders/story tellers	6	<i>„I found it very expensive and costly to obtain information from the Uganda Museum as I incurred transport costs and also paid entry fees.” (B10)</i>
Internet fluctuations		4	<i>„There was a challenge of obtaining relevant information from the Sabiny elders as they mentioned only what they remembered about themselves while others refused to reveal information concerning their culture’ (B14)</i>
Technical log in challenges on the Wiki		9	<i>„I faced a problem of Internet fluctuations as I could not listen to the uploaded videos and saving the information I had typed would take so long’ (B18)</i>
Sense of fear of making mistakes while posting content on the Wiki	Difficult to upload Historical images, videos on the Wiki	6	<i>„Basically, operating the platform like uploading videos was a challenge, sometimes websites could not open showing me error in URL” (B20)</i>
		1	<i>„A lot of tension and fear not to make mistakes” (B15)</i>
Invite more members to participate in constructing history meanings on the Wiki		10	<i>„Inviting more people with different abilities and knowledge of history would be a good move to get more detailed Historical information. (B12)</i>

Organize sensitization, training seminars		8	<i>„Need to organize seminars, workshops for training and sensitizing teachers and students about the importance of integrating ICTs in history Instruction.” (B8)</i>
Embed Wiki to other social media like Facebook for publicity		10	<i>„Linking the Wiki platform to social networks like facebook. Such that when one member posts the entire group is notified through their accounts.” (B4)</i>
Avail faster internet at School of Education		5	<i>„Avail more funds to work upon the internet problems at School of Education.” (B18)</i>

Table 7. 22: Questionnaire findings at step 6- reflection and framing history

Data findings from table 7.22 were presented in themes and sub-themes highlighted under possibilities, challenges and suggestions for improvement. I began by highlighting possibilities of constructing history meanings on the Wiki platform. Thirteen out of 17 participants revealed that their knowledge on Ethnicity in Uganda was improved, with six falling under a sub-theme of appreciating cultural heritage. Five out of 17 indicated an improvement in digital skills; ten indicated that they found the new approach to learning history exciting and enjoyable, with ten falling under the subcategory of acquiring social identities and collaborative learning from peers. Four indicated that they obtained historical thinking skills; six revealed that their posts were edited and peer reviewed on the Wiki. In order to make some participants’ comments visible, I identified one sentiment from each theme for analysis largely dependent on their relevancy to the research questions.

Analysis Example 1

Theme: New approach to learning history was enjoyable and exciting

Extract: *„I have found my engagement on the Wiki enjoyable and exciting because I participated in the making meaning to the past through commenting on peers’ posts and uploading pictures”. (B11)*

Example 2: Internet fluctuations and login challenges

Extract: *‘Basically, operating the platform like uploading videos was a challenge; sometimes websites could not open showing me error in URL’ (B20)*

Example 3: Organize training seminars for integrating ICTs in teaching history

Extract: *„Need to organize seminars, workshops for training and sensitizing teachers and students about the importance of integrating ICTs in history instruction.” (B8)*

As a possibility, B11 found the new innovation in History Education „enjoyable and exciting” and this was because he „actively participated and commented on peers” posts and uploading pictures on the Wiki. My argument is that the quality of History Education could be improved by engaging with the potential benefits of ETs as innovations available to the 21st century students. As shown in the preceding chapters, active involvement of students through consulting elders, uploading videos, images and engagement in dialogical conversations on the Wiki would absolutely arouse students’ interest in learning about the past. This new innovation in History Education would accommodate the new generation of students (Prensky, 2001) highly acquired with the 21st century skills, such as collaboration, reflection, digital skills, and historical thinking as highlighted in table 7.22.

In analysis of example two, the challenge of internet fluctuations and connectivity, student B20 highlighted „a difficulty in uploading historical videos” on the Hermwiki platform. The challenge of internet fluctuations and low bandwidth always constrained the successful operations of Wiki (Heng & Marimuthu, 2012). However, in some instances of low Internet connectivity, students upload videos at off-peak times and work. Closely aligned to this challenge, Makerere University’s Directorate of ICT Support has initiated plans to increase bandwidth and also suggested utilization of mobile phones with internet bundles that are cheap and easily afforded by students (Muyinda, Mayenda & Kizito, 2014). On the other hand, student B8 suggested a „need for organization of sensitization seminars, training workshops, for integrating Wikis in teaching history.” This therefore implies that, there is a need for organizing continuous professional development seminars and training workshops to enhance the integration of ETs in teaching history.

The questionnaire findings were further triangulated with interview sentiments in section 7.21:

7.19 Interview findings at step 6: reflections and framing history

Interview sentiments were selected on the basis of those that were well worded and provided an expansive understanding of the possibilities and challenges of Wikis in learning history obtained from three participants, who said that:

„Through my engagement with learning history on the Wiki platform; I have realized the importance of the visual representation of the past through watching videos on what actually happened.“ (A29)

„I appreciate the idea of using Wikis in learning history emphasizes group learning while assessing each other; I have been able to read my fellow peers“ work, commented, criticized and obtained instant feedback. It makes history open ended and continuous.“ (A33)

„I would have shared lots of videos and images about the Sabiny and Buganda cultures but I failed on several lo in attempts. Also, I was constrained by internet fluctuations that slowed down my progress.“ (A26)

Given the above qualitative sentiments, I argue that History Education ought to engage with transformative pedagogies mediated by ETs such as Wikis with potential affordances of tracking the dialogical construction of history meanings over a period of time, with a focus of improving the quality of learning. For example, A33 uses the words „using Wikis in learning history emphasize group learning and assessing; it makes history open ended and continuous.“ This sentiment is indicative of the relevance of collaborative learning and analyzing the past with an understanding that content in history ought to be interpreted with a view that understanding is endless. However from my own point of view, the challenge of Internet fluctuation shown above can be overcome by downloading content during off-peak hours, working offline and reverting back. Also, there is a need for

continuously training teachers as agents of pedagogical change to change their attitudes and get motivated to embrace ETs in the pedagogical process.

The interview qualitative sentiments were further triangulated with observational findings in section 7.22.

7.20 Observational findings: reflection and framing history

Observational findings at this step (see appendix C) closely aligned with what students had reflected on the questionnaire and interviews presented above. These highlighted among others: participants' improvement in understanding of Ethnicity in Uganda, acquisition of more digital skills with a persistent challenge of Internet fluctuations and login problems. Findings further highlighted a need for continuous training of teachers and students to embrace the use of Wikis in history pedagogy. Therefore, the corroboration between questionnaire, interview and observational findings was relevant in supporting the credibility and dependability of findings in this research (see chapter 9, section 9:8).

However, while a larger aspect of reflection and framing history was achieved as highlighted above, I tasked students to make further reflections on how drawing lessons from the past could influence their current lives in the present, as highlighted in the new task dated 17 September 2015 (see figure 7.6 above). My argument is that reflections on how lessons studied from the past (History Education) can be applicable to solving present challenges is relevant in linking theory to practice. In agreement with this view, the DBR approach advocates for a reflective process to bridge the gap between theoretical knowledge gained and its practical implications in solving real life authentic classroom problems (Parker, Maor, & Herrington, 2013; Alhajri, 2013). It is therefore against that background that I decided to engage in the third implementation of the design solution to execute the application of History Education theory into solving students' day to day needs (see chapter 8). This was captured under the DBR phase 3 of iterative cycles of testing and refinement of solutions in practice. Hence, the iterative nature of DBR means that a research study will have two or more cycles to gain the success of an

intervention and its ability to address the problem (Herrington, McKenney, Reeves, & Oliver, 2007). That said, anecdotal evidence indicates that most graduates in Uganda cannot solve today's problems because the history curriculum provides too little thinking and application of the past in solving real life authentic challenges. I argue that teachers should continuously highlight the relevancy of teaching history by dialogically constructing lessons learnt from each topic covered and linking them to the students' needs in the present. Moreover, focusing learning around solving problems in the present lends itself to the inclusion of multiple perspectives and voices focused on addressing real life challenges (Stockdill & Moje, 2013). As earlier mentioned, a third implementation of the design solution reflecting on theory and practice was executed in chapter 8. To this end, Clark (2013) argues that the engagement with various implementation cycles in DBR research is a strategy to ensure reliability of the design, thus providing researchers an opportunity to refine the design while also gaining a more informed understanding of how the intervention can work well at a given context at the next iterative cycle.

7.21 Chapter Summary

A description of each revised design principles was presented (premised on Salmon's five-stage procedural steps but presented under different names). Subsequently, the Wiki meaning-making platform was redesigned and renamed Hermwiki to accommodate changes of names in the revised design principles. To ensure that all participants gained access, inquired and received instant feedback on the operations of the Hermwiki, face-to-face orientation workshops were organized. Data was analyzed using hermeneutic cycle driven analysis procedure.

Findings were provided to respond to the two research questions:

- 1). How is historicity constructed on the Wiki among pre-service teachers at Makerere University?
- 2). How is authenticity achieved on the Wiki platform?

Subsequently, findings revealed that historicity was constructed through dialogical conversations between the past and the present. Also, historicity was constructed through

active participation in doing history through attaching meaning to images and videos obtained from the past, mediated by Wikis as the lens from the present. While for research question two, findings indicated that authenticity was achieved through reading and interpreting history from multiple sources of historical evidence. The chapter concluded by presenting a reflection of the activities of the Hermwiki captured under, „to support reflection and framing history.“

The proceeding chapter presents the third implementation of the design solution.

CHAPTER 8: THIRD IMPLEMENTATION OF THE DESIGN SOLUTION

8.0 Chapter Overview

This chapter provides an iterative process through which the revised design principles, to support reflection and framing of history, is re-evaluated. The chapter begins by highlighting, reflecting and framing history, by participants involved and face-to-face orientation workshops. Given that the data was solely generated from observations on the Hermwiki platform, it was concluded that History Education should encourage engagements with learning approaches that emphasize a close link between the past and the present so that students relate the relevancy of what they learn to their daily lives. The chapter concludes by providing a summative response to the research question three together with the transition changes of the iterative cycles implemented in chapters 6, 7.

8.1 Refining and retesting step 6: reflection and framing history

Given the recommendations in the preceding chapter, there was a disjuncture between inadequate sharing of participants' lived experience to be manifested in transfer of knowledge obtained from the study of the past (history methods course) to practically applying this knowledge in an authentic real world settings during school practice (theory reflected in practice). On reflection, this could have been because the move from application of theory into practice (what is taught to be applied in authentic contexts) is a challenging one. Moreover, I earlier argued that perhaps this process required a longer period of time for the participants to become comfortable with being open-minded and challenging ideas in the actual history classroom setting as well as being critically reflective of their own views and positions (Sebbowa et al., 2014:40). It is against this background that retesting "Reflection and framing history" was achieved through setting up a third implementation labeled: Third implementation of the design solution – aligning history education to lived experiences (see figure 8.1). Thus, the proceeding section presents a description of participants.

8.2 Participants

Basing on my observations of the activities on the Hermwiki, I identified five participants who had shown interest, motivation and had been consistent with engaging in dialogue on, *Ethnicity in Uganda*, on the Wiki platform (see chapter 7). This implied that the identification of the participants at implementation 3 was informed by the observations and reflections made at implementation 2. Thus, these participants were all in their third year of study (day programme) taking history as one of their teaching subjects. It is worth noting however that the number of participants in the subsequent implementation phases in this study varied. For example, implementation 1 involved eight participants (see chapter 6); implementation 2, engaged with 20 participants (see chapter 7) and implementation 3 involved only five male participants who had also been part of implementation 2 as presented in table 8.1.

Item	Option provided	No. of participants out of 5
Gender	Male	5
Current year of study	Third year of study	5

Table 8. 1: Participants' background information at implementation 3

Following table 8.1, all the 5 participants were male - this could perhaps be explained by my earlier argument of the female students using social networking sites for non-academic purposes more than their male counter parts. Thus, the identified male participants expressed high interest in constructing history meanings on another topic as they had exhaustively covered Ethnicity in Uganda (see section 7.9.0). However, three of these preferred sharing and communicating their lived experience from school practice on the Hermwiki. Consequently, I sent them emails to ensure and confirm their willingness to participate in the follow-up study. Having obtained their consent, I invited them for a face-to-face meeting scheduled on 10 October 2015. This meeting aimed at reorienting participants about implementation 3 while also encouraging them to obtain the sense of physical presence amongst each other and the educator.

8.3 Face-to-face workshop

The face-to-face meeting was held in my office at the School Of Education and it lasted for only one hour as it was a teaching period in the semester and participants had to attend their lectures. The reason for meeting in my office was because the number of participants was small and students suggested that it would be more convenient and conducive for them with less noise compared to other physical spaces. Consequently, I began the meeting by expressing my appreciating for the participants' continued interest, commitment and engagement in the construction of history meanings on the Hermwiki. I then requested participants to feel free, open up, question and reject any thing they felt was discomforting to them. This was followed by introduction sessions where participants mentioned their names, interests and expectations for implementation 3. That said, I mentioned the aim of the meeting as the need to align History Education with lived experiences while also reflecting on the knowledge of the past to solve today's problems (to be mediated on the Hermwiki). This was followed by an invitation for participants' reactions and comments to my communication. Subsequently, a suggestion of identifying the history topic was received as follows.

8.4 Procedural process for identifying the history topic

Following my communication, one participant suggested that we engage with the topic, *Slave Trade in East Africa* with a rationale that its remnants are still manifested in today's graduates and that we need to collaboratively devise means of solving this persistent problem. All the other participants unanimously agreed to construct meaning on *Slave Trade in East Africa* with manifestations still reminiscent in the contemporary world. To this end, Monte-Sano, (2011) argues that some events of the past hold immediate interest than others because they appear to offer insights or lessons which have relevancy to current problems. Slave trade is an important topical issue which students should know from the beginning and the end with greater understanding aligned to its existence today (Konate, 2010). Moreover, it is one of the topics covered by Uganda's O level history syllabus (Senior two) taught in paper one under the History of East Africa from c.1000 to Independence (see chapter 2). That said, I proceed with presenting observational findings on the Hermwiki.

8.5 Observational findings at step 6: to support reflections and framing history

As earlier illuminated, data at implementation 3 was solely generated from observational findings focused on pedagogical activities reflected by educator task and students' responses to the task. Thus, the interactions between the educator–student and student–student were significant in eliciting dialogue and openness to each other's views following Gadamer, (2004). That said, the related pedagogical activities on Reflection and Framing History were reflected under implementation 3: Aligning History Education to Lived Experiences as presented in figures 8.1 and 8.2 respectively.

The screenshot displays a digital workspace interface. The main title is "Implementation 3-Aligning History Education to Lived Experiences". Below the title, it says "last edited by [redacted] 7 hours ago" and "Page history". A red "Task" heading is followed by a list of four bullet points:

- Using information from History resources(texts books/internet articles, pictures, images, videos), make an interpretation of Slave trade in East Africa? (Highlight the references used- upload pictures,videos,audios)
- Basing on your lived experiences from School practice, discuss the teaching methodologies that can enhance effective learning of Slave trade in East Africa at the secondary School level?(Give a reason for your choice of response)
- Cite examples of remnants of Slavery in the current situation?
- Suggest ways of overcoming the manifestations of Slavery in the present situation.

Below the tasks, it says "Instructions for team members:". On the right side, there is a sidebar with a "Navigation" pane. It contains a "Sidebar" section with a link "Pictures, images, audio, video, and PDFs". Below this link is a photo of a traditional East African pot. At the bottom of the sidebar, there is a logo of the University of Makerere and the text "Welcome to Makerere".

Figure 8. 1: Implementation 3: Aligning History Education to Lived Experiences



Figure 8. 2: Pictorial images shared on Slave Trade in East Africa

Following figure 8.1 implementation 3 - Aligning History Education to Lived Experiences - the educator set out a task (highlighted by blue). Therefore, while the first question was related to the study of slave trade in the past as documented in literature, the last three questions were related to students' lived experiences, their perceptions about the problems accrued from the past, how this was still manifested in the present and how they thought this persistent problem could be solved today. The rationale behind task 1 in figure 8.1 was to enable students to read a variety of sources of evidence and come up with shared interpretations and meanings. This was important in exhibiting awareness of the bias and prejudice brought about by authors, and their own preconceptions originating from their historical and social backgrounds. Thus the historical hermeneutics philosophy attests to understanding tradition by viewing texts (artifacts) from multiple dimensions and analyses to avoid personal P&Bs (Gadamer, 2004 & Risser 2015). In reaction to task, an example of students' responses was presented in figure 8.2 in form of images illustrating the representation of slavery in the past, complemented with narratives in form of dialogical conversations between student-student and student-educator. Therefore, educator task and students' responses were categorized according to themes arising from that data observed on the Hermwiki reflected in tables 8.1 and 8.2 respectively.

Educator's task/ activities	Students' responses/ activities in themes	Number participants" out of 5	Representative comments
1). Tasked participants to make an interpretation of <i>Slave Trade in East Africa</i> using information from history resources.	Buying and selling of human beings by fellow human beings.	2	<i>„My personal understanding of Slave Trade is that, it is the buying and selling of human beings while Slavery is the state of being enslaved”(C29).</i>
	Slave trade led to poverty that is still reflected in the present	2	<i>„Mr. xx, I also think that to some extent slavery contributed to poverty levels in pre-colonial Africa and this has continued up to date.”(C33)</i>
	Slaves are taken to work without pay and knowledge	1	<i>„In the past, Slave trade was a situation of giving out a person into captive to go and work without pay and done without the knowledge.”(C32)</i>
	Three images and one video representing <i>Slave Trade in the Past</i> and two videos representing modern day slavery were shared.	3	<i>„The images were obtained http://www.scaruffi.com/politics/slavetra.html. (C33)”</i>
2). Asked participants to use their lived experience from school practice and discuss the teaching methods that can enhance the effective teaching	Use active methods to teach <i>Slave trade in East Africa</i>	2	<i>„I believe history teachers should use active methods to teach history like discussions, question and answer, role play other than the just dictating notes to the students. Students become excited when they make contributions to what is going on in the class (C31).”</i>

of Slave Trade in East Africa?	Use group discussions to teach	1	<i>„From the school practice experience, using discussion method in teaching Slave trade in East African is a more effective method in helping the learners understand and be in position to relate ideas to the current situation” (C30).</i>
	Use of multidisciplinary approach	1	<i>„Amultidisciplinary approach which brings together many disciplines, usually two or three, based around a theme, idea should be employed” (C32).</i>
	Use multiple communication strategies	1	<i>„Using interactive tools such as the slavery websites and maps is useful to illustrate this from a global perspective. Newspaper stories highlighting the occurrence of slavery in the Uganda, East Africa or Africa in general” (C33).</i>
Supplemented the students’ responses	Commented on fellow peers’ posts with supplements from the educator.		

Table 8. 2: Participants’ activities at step 6- to support reflections and framing history

Given that findings from table 8.1 provided in responses to task 1, it was revealed that, out of the five participants observed, two interpreted slavery as the buying and selling of fellow human beings. Two viewed slave trade as poverty in the past and present, while the remaining one participant viewed slaves as taken to work without pay and knowledge. Moreover, three participants shared their interpretation of slave trade by uploading three images and one video representing slave trade in the past on the Wiki site, and two videos representing modern day slavery. Subsequently, findings to task 2 revealed that three participants used active teaching methods like role play and group discussions to teach *Slave Trade in East Africa* with a rationale of free learning and empathy with slavery, one

participant cited the multi-disciplinary approach with an argument that it holds the significance of bridging together two themes. Moreover the remaining one participant indicated the use of multiple communication strategies such as slavery websites, newspapers, highlighting the need to make learners „view slavery from a global and international perspective“.

I selected an extract from table 8.1 above that linked to how slave trade could be taught in the present situation for analysis.

Analysis example 1

Theme: Use active methods to teach *Slave trade in East Africa*

Extract: „*From my experience, I believe history teachers should use active methods to teach history like discussions, question and answer, role play other than the just dictating notes to the students. Students become excited when they make contributions to what is going on in the class.*“ (C31)

Explanation: The above sentiment was indicative of the fact the student would engage with „active methods to teach history“ thus facilitating teacher-student dialogical conversations in making meaning to the past (*Slave Trade in East Africa*). The student continued to argue that „other than just dictating notes to students,“ they „become excited when they make contributions to what is going on in the class.“ This sentiment was relevant for two reasons: firstly, it provided evidence that active construction of history meanings in the pedagogical process aroused students“ interest and made learning exciting (see study problem in chapter 1 and 2). Secondly, this revelation helped me to redefine and re-understand my research problem from the lens of the teacher reading aloud notes in the classroom (behaviorist approaches) yielding to demotivation in learning about the past. This qualitative sentiment therefore confirmed that today“s students prefer learning through dialogue and participation in making meaning to the past albeit behaviorist approaches. I argue that History Education should embrace dialogic approaches that emphasize a close linkage between the past and the present so that students can apply the relevancy of what they learn to their daily lives. This closely aligns with Gadamer“s philosophy that advocates for a fusion of horizon where the horizon of

the present cannot be formed without the past (Gadamer, 2004). This statement suggests the unending dialogical conversations between the past and the present as reflected in attaching meaning to the past viewed through the lens on the present. The following table 8.2 represents the participants' pedagogical activities.

Participant's task/ activities	Student/participant's responses/ activities in themes	Number participants' response per theme out of 5	Representative comments
3). Asked participants to cite examples of remnants of slavery in the current situation Supplemented the students' responses as a way of dialogical conversations between the students–students and educator–students	Housemaids/ helpers	2	<i>„Slavery also exists in our own house holds today. Look, you get a young girl or boy from the village without her consent but you make payments to the parent/guardian; so she is sold off“(C31)</i>
	Voluntary slavery abroad such as criminals surrender themselves	1	<i>„Today people surrender in to Slavery willingly like criminals. Perhaps because of ignorance and poverty. As a result of being unemployed, a number of companies have come up taking people abroad for better jobs“(C29)</i>
	Men are forced to join the military abroad without their consent	1	<i>„Men sometimes are forced to join army when actually was not their original intention“(C32)</i>
	Human trafficking today	1	<i>„ Human traffickers persuade people into slavery through false promises of employment or quality education, only to find themselves forced to work without pay.“(C33)</i>
4). Asked participants to suggest ways of overcoming the Manifestations of Slave Trade in the present situation	Change of mind set and attitudes towards life	2	<i>„Changing the mindset is the first step to cause change which automatically also changes our attitudes. There are also ongoing conferences and seminars about changing the mindset of the youths to help fight poverty“(C32).</i>
	Graduates provided with lifelong skills through studying history	2	<i>„One other way of overcoming manifestations of Slavery today like Poverty and Unemployment is to use the skills acquired from the Education system (C31).</i>

	Make the study of slave trade interdisciplinary and relevant to the current situation	1	<i>„I am also proposing that when we are teaching in schools, we should try to integrate slavery and slave trade not only in history but also in other subjects that we may be teaching as well. (C33)“</i>
--	---	---	--

Table 8. 3: Participant tasks 3 and 4 with related students’ responses (activities)

Data in table 8.2 in response to the educator task cited examples of remnants of slavery in the present situation revealed the following: out of the five participants, two indicated the example of household maids, one suggested that people surrender themselves in to slavery citing criminals as an example, one indicated that some men are forced to join military without their consent while the remaining one participant suggested that human trafficking today is a form of slavery where people are promised better jobs and better employment. Further still, results from task 4 revealed that out of the five participants, two indicated the need to change mindsets and attitude towards unemployment in Uganda, two suggested that graduates be provided with lifelong skills through studying history, while the remaining one indicated the need to make the study of slave trade interdisciplinary and relevant to the current situation. Consequently, from table 8.2 above, I identified two extracts that contained words that suggested manifestations of slave trade today and how these could be overcome.

Analysis example 1

Theme: Human trafficking today

Extract: „ *Human traffickers persuade people into slavery by false promises of employment or quality education, only to find themselves forced to work without pay.*” (C33).

Analysis example 2

Theme: Graduates provided with lifelong skills through studying history

Extract: ‘*One other way of overcoming manifestations of Slavery today like Poverty and Unemployment is to use the skills acquired from the Education system.*’ (C31)

The qualitative sentiment from example 1 suggested that slavery is still reminiscent in the contemporary situation mainly because of lack of employment and poverty in Uganda today. The student reported that, „human traffickers persuade people into slavery by giving them false promises of employment.” As earlier highlighted, history teachers should engage in dialogue with their students to draw lessons learnt that relate to the student needs. This aligns with Stockdill & Moje, (2013) who acknowledge that incorporating problems and questions that relate to students’ own struggle and identities can help shift history instruction away from banking to education in which students are positioned as passive absorbers of transmitted ideas. Moreover, historical hermeneutics constructs place emphasis on the altering history to make it relevant to the present situation (Gadamer, 1975: 2004). That said, in example 2 the perception of the student was to use the skills obtained from education to be able to sustain life (market world). The student used the phrase that „views unemployment and poverty in the present as a manifestation of slavery today. With this problem at hand, he suggested that students obtain lifelong job skills through the „education system.” However, on contrary to the students’ suggestion, my stance is that, the current educational content in history curriculum is more theoretical and does not address the job market needs effectively. Thus, without linking with job related skills and competences, what is taught in history education still remains disconnected to the evolving job market. My argument therefore is that, higher educational Institutions need to engage in continuous dialogue with practitioners with a rationale of closing the gap between content taught and the relevant

competencies needed in the employment world. While, the preceding chapter 7 above, students acknowledged the possibilities of obtaining multiple skills through constructing history meanings on the Herwiki.

I further argue that, contemporary graduates need to obtain lifelong skills such as communication, networking, creativity, critical thinking and digital competencies and job related skills to help them solve the 21st century challenges. Thus, graduate achievements need to be aligned to the curriculum. Most developed countries have made curriculum reform a continuous process in response to the rapidly changing employment demands (Clegg et al., 2007). The results also suggested that participants enjoyed sharing personal experiences and skills with their peers as well as learning new things from the group. In support of this view, Stockdill & Moje,(2013) argue that young people first experience history through their personal experiences and through relationships and perspectives with their peers. Thus historical hermeneutics constructs of dialogue and the fusion of horizon between the past (study of history) and the present (skills acquired to apply in the present) were evident at this step.

Perhaps the limitation at implementation 3 was that the case study of five students was small and certainly not representative of (Makerere University's History Education) general students' interest in solving problems that have persisted in the present situation. Although the proposed topic, manifestations of Slave trade in East Africa as captured in the preceding sections may be reflected in the present situation with related suggestions for solving such challenges. These solutions might not fully address the impact of the manifestations of Slave trade in East Africa in the present situation. Yet this provided insights to educators to give students space to share their opinions and views so that they could interpret the past events to apply history to them in the present. Historical hermeneutics theory places emphasis on the dialogical way of thought in which application of theory to practice is inseparable from our daily lives (Porter & Robinson, 2011).

Having successfully engaged with DBR phase 3, DBR phase 4 involves reflection to produce design principles and enhance solution implementation (see figure 4.1). This focused on the production of design principles that could inform future development and implementation decisions (Herrington, n.d). As earlier highlighted, the creation of design principles formed the basis of my research question 3 and the related responses.

8.6 A summary of responses to research question 3 as evident in the changes in design principles

Given that the desired outcome of the DBR approach was the creation of design principles reflected in a pedagogical framework for teaching history, research question 3 was: what design principles guide a pedagogical framework for constructing of historicity? The responses were obtained from a reflection of the design principles procedural steps reflected in table 8.4.

Implementation 1 (see chapter 6)	Implementation 2 (see chapter 7)	Implementation 3 (see chapter 8)	
Formulated design principles	Revised design principles	Revised design principles	Final guidelines to be reflected practice
To enable access and motivation	To access and play	To access and play	To connect to the present
To promote online socialization	To promote online introduction	To promote online introduction	To appreciating heritage
To support information exchange	To support preconceptions about History Education	To support preconceptions about History Education	To validate history
To promote knowledge construction	To make shared interpretations of history meanings	To make shared interpretations of history meanings	To do history
To foster development	To support open questioning and clarifications	To support open questioning and clarifications	To promote dialogue in history
	To support reflection and framing history	Re-tested	To apply history

Table 8. 4: Formulated design principles, revised design principles and final guidelines

Following table 8.4, the validation process of each design principle was achieved through documenting the reflection of what was successful and what failed so that it would be re-tested in the proceeding implementation (see chapters, 6, 7 and 8). Thus, the change in names of the design principles was guided by the findings at each implementation and the historical hermeneutics theory. The responses to research question 3 were obtained through a systematic procedural process finally reflected in final guidelines to be reflected in practice. Moreover, the names adopted for the final guidelines were obtained from dominant words, phrases and themes in the study findings, substantiated with examples such as appreciate heritage, dialogue in history, apply, among others. In support of this view, Herrington (n.d) argues that after the implementation and assessing of the proposed solution, the draft principles that have guided the design of the solution are reversed and retested to reflect findings. Therefore, the responses to research question 3 above entail: to connect to the present, to appreciate heritage, to validate history, to promote dialogue in history and to apply history (see chapter 10).

8.6 Chapter Summary

Following the presentation of the two iterative cycles at the first and second implementation of the design solutions, this chapter presented the third implementation of design solution aimed at refining the revised design principle, to support reflection and framing history. This was achieved in some aspects with students drawing examples from the study of the past and their lived experiences (as pre-service teachers) to suggest solutions that practically related to solving their problems in the present. Thus this chapter substantiated the final implementation of DBR phase 3 focusing on testing and refining the design solutions in practice (Reeves, 2006:59). Consequently, DBR phase 4 was instrumental in the creation of design principles as well as providing responses to research question 3.

The next chapter illuminates a reflection of the DBR phases.

CHAPTER 9: REFLECTION OF THE DBR PHASES

9.0 Chapter Overview

This chapter presents a reflection of the four phases of DBR illuminating the different activities that took place at each phase. The chapter highlights procedural processes during the three iterations unpacking DBR phase 3 and the creation of design principles. Consequently, answers to the three research questions are discussed in alignment with the design principles. The chapter concludes by describing the issues of quality within the research.

9.1 Procedural: DBR approach

A DBR approach was selected as an appropriate and justified methodology to guide this research (see chapter 4, section 4:4). The study was conducted using the DBR four phases - phase 1: analysis of practical problems by researchers and practitioners in collaboration; phase 2: development of solutions informed by existing design principles and technological innovations; phase 3: iterative cycles of testing and refinement of solutions in practice; phase 4: reflection to produce design principles and enhance solution implementation (see figure 4.1). The next sections illustrate how these phases were implemented following a systematic process that led to the final guidelines (pedagogical framework).

9.2 Phase 1: Identification and refinement of the problem by the researcher in collaboration with practitioners

The educational research problem emphasized in this study stemmed from general higher education particularly History Education, which places more emphasis on theory than on guiding students to use the past in solving their present challenges. As a result, some students among other reasons attach no relevance to learning history and thus find it irrelevant to the present situation. This challenge is attributed to the dominant use of behaviorist pedagogies reflected in reduced engagement and little/no linkage to the way today's students learn (see chapter 1, section 1:1). I argued that, the authoritarian approach to teaching about the past bears a historical origin from pre-colonial and

colonial times onto post-colonial Uganda (see chapter 2, sections 2.2 and 2.3). Having undertaken the PGDE ICT journey, I was directed to the possibility of using the potential affordances of ETs as interventions envisaged to enhancing dialogue between educators (past) and students (present) in History Education (see chapter 1, section, 1.3).

Influenced by the DBR phase 1, I needed to redefine my understanding of the problem by interacting with other stakeholders. To this end, I held informal consultations with practitioners, history teachers, teacher educators and a curriculum expert from NCDC (see chapter 4, section 4.6). The consultations with practitioners were important for two reasons. Firstly, these experienced personnel suggested possible solutions to the problem given that they faced similar pedagogical challenges on a daily basis. Secondly, the consultations helped me re-understand the problem while receiving rich practical insights and solutions from shared lived experiences (see table 4.2). These collaborations with practitioners enabled me to refine and re-understand the problem with new horizons in two ways. Firstly, history was/is being taught with limited or no shared dialogue between students and teacher, and that learning will continue to dissipate from one generation to another. Secondly, there is a need to obtain multiple perspectives about the past mediated by ETs to capture the way today's students learn.

Consequently, literature was reviewed to establish how other researchers had engaged with similar pedagogical challenges (see chapter 2 section 2.8). Research in the area of History Education revealed that contemporary students find the learning of history useless to their current lives. The reason highlighted for this was that most students are not actively involved in attaching meaning to the past because of the pre-dominant behaviorist approach to teaching. To this end, Haydn et al., (2015) argue that, in this era, teachers cease to be the only source of information as students use technological tools that are available to them to obtain diverse views about a topic under study. Subsequently my thesis is that, unless contemporary students engage in dialogical conversations, focused on attaching meaning to the past mediated by ET (Wikis), there is a risk of losing knowledge of the past and the learning of history will continue to dwindle from one generation to the next.

Having identified, investigated and redefined the educational research problem, I engaged with the historical hermeneutics theoretical constructs to guide my understanding of the dialogical conversations between educators (representing the past) and students (representing the present) as reflected in chapter 3. Theoretical underpinnings were important in providing the language and proposed solution to the highlighted study problem. Moreover, historical hermeneutics theoretical constructs - historicity and authenticity - were explored to suggest possible solutions as reflected in the first two research questions (see chapter 1, section 1.7). Further solutions to address the study problem were proposed under DBR phase 2 as presented in the proceeding section.

9.3 Phase 2: development of solutions informed by existing design principles and technological innovation

As a continuation of the DBR phase 1, I developed solutions to the research problem by consulting literature on how similar problems had been addressed with a focus of obtaining existing design principles. Salmon's five-stage model provided a guiding framework (Salmon, 2002) or existing design principles for mediating effective dialogical conversations between the educator and students on a Wiki meaning-making environment (see chapter 5, section 5.1). Therefore design principles were formulated by aligning to Salmon's five-stage model (existing design principles) and historical hermeneutic theory to reflect the formulated draft design principles (see table 5.1). As highlighted in the previous sections, the relevance of the historical hermeneutics theory was to provide the theoretical language and guide the thinking behind the dialogical conversations between educator and students.

Following DBR phase 2, I designed a Wiki meaning-making environment as a technological innovation customized to the formulated design principles with a focus of addressing the identified problem (see section 5.41). The choice of Wikis as an innovative intervention was due to their affordance of preserving and fostering shared conversations of history understandings from which meanings could be continually

edited, iterated and revised to attain true understanding (Sebbowa et al., 2014). Having designed a Wiki meaning-making environment and developed formulated design principles, I focused on DBR phase 3.

9.4 Phase 3: iterative cycles of testing and refinement of solution in practice

As already discussed, the importance of DBR phase 3 was to implement, test and evaluate an intervention (Wiki meaning-making environment) in practice at an authentic context (Makerere University). Consequently, the design intervention was tested and implemented through three iterative cycles in which design principles were refined to improve practice (see chapters 6, 7 and 8). In the next section, I reflect on the first implementation of the design solution.

9.4.1 Reflection on the first implementation of design solution

The first implementation of design solution was conducted as a pilot study for a period of three weeks (see chapter 6). I began by providing the procedural structure for implementation of the design solution- Wiki meaning-making environment (see chapter 6, section 6.1).

This was followed by a systematic process followed under formulated design principle step 1: to enable access and motivation. Eight volunteer students taking history in their third year of study at Makerere University expressed interest in participating in the Wiki meaning-making environment and were invited to attend a face-to-face orientation workshop (see table 6.2). At the workshop, participants were given an overview of the Wiki intervention (design solution) and provided with ongoing support from the educator and were encouraged to consult with peers on how to gain online access (see section 6.1). Having successfully gained access, the participants unanimously agreed to construct meanings on the topic; *Manifestations of Neocolonialism in Uganda* (see table 6.1). Implementation 1 was conducted in form of a pilot study, data was collected through written interviews and observations on the Wiki meaning-making environment (see section 6.3). The results were summarized into lessons learnt that formed the basis for implementation 2 (see section 6.9).

That said, the proceeding sections present a reflection of the formulated design principle steps by highlighting what each involved, what worked well and what did not work well.

Step 1: to enable access and motivation

At this step, participants continuously consulted each other and the educator until they were able to obtain access to the Wiki meaning-making environment. Access was obtained from the available infrastructure such as desktop computers at the computer laboratory, or mobile phones and personal laptops. Subsequently, all students were able to gain access and made introductory posts that exhibited online presence (see table 6.2). Although step1, was successful (see section 6.3.1), I observed that it is important to give participants more time to make trial posts (acclimatization) and learn how to engage with the Wiki meaning-making environment informally without rules and procedures. Such observations, coupled with participants' comments, provided the basis for refining and re-adjusting step 1 at implementation 2.

Step 2: to promote online socialization

At this step, participants were asked to respond to the pre-engagement task on the Wiki meaning -making environment (see chapter 6, section 6.3.2). They were also expected to share their pre-conception of history teaching in Uganda. All the participants attempted the pre-engagement task and introduced themselves (see figure 6.2). However, since I was drawing on the historical hermeneutics theory, I shared my own preconceptions about history teaching by noting my own pre-understanding about history teaching before I listened to what participants had to say (see 6.3.3). Sharing my own pre-understanding was important to exhibit my awareness of personal bias and prepared me to learn something new as seen through the participants' lens. Consequently, given the participants qualitative statements, for example, „history teaching in Uganda is geared to memorization and passing of examination“, I realized that my own preconceptions were neither unique nor different from theirs (see figure 6.3). New perceptions of history teaching viewed from the participants' perspective improved my own understanding and also led to refinement of the study problem. However, although step 2 was to a larger extent successful as most participants revealed their online identities, others did not ably engage with the pre-engagement task (see figure 6.2). I argued that this might have been

because students were not continuously motivated by the educator to engage in online participation. This was recorded under reflections (see section 6.9) and served as the basis for refinement of step 2 at the second implementation of design solution.

Step 3: to support information exchange

At this step, participants were required to share their conceptualization of the *Manifestations of Neocolonialism in Uganda* and also share and exchange images on the Wiki intervention (see section, 6.3.4). While all participants successfully shared their conceptualization of neocolonialism by posting different views, most of them did not upload images (see figures, 6.4 & 6.5). On reflection, this was due to the limited time to implement this activity and also because students did not actually practice (learn) how to upload historical images onto the Wiki meaning-making environment. This constraint was recorded under lessons learnt and served as a basis for refining step 3 at implementation 2 in chapter 7.

Steps 4 and 5: to promote knowledge construction and to foster development

Having successfully implemented formulated design principle steps 1, 2 and 3 on the Wiki meaning-making environment, my expectation at this level was for participants to engage in further negotiations and shared constructions of knowledge on the *Manifestations of Neocolonialism in Uganda*, while evaluating and reflecting on their own learning, however this was not achieved (see section 6.3.5). As earlier highlighted, since steps 4 and 5 were not successfully executed; these partly provided the basis for the second implementation of the design solution.

9.4.2 Reflection of the second implementation of the design solution

I redesigned the Wiki meaning -making environment and renamed it Hermwiki (see figure 7.1), as I wanted the pedagogical activities on the Wiki intervention to be customized to the historical hermeneutics perspective. Correspondingly, formulated design principles were renamed and principles were revised to align to the History Education context together with the theoretical perspective (see chapter 7, table 7.1).

The second implementation of design solution was conducted within a period of one year involving 20 volunteer students. This was a diverse cohort of pre-service teachers taking history in their second and third years of study, as well as those on PGDE at Makerere University (see section 7.3.2). Subsequently, face-to-face workshops were held to acclimatize participants through the construction of history meanings on the Wiki meaning-making environment (see sections 7.3.3 and 7.3.4). During the workshops participants agreed to deliberate on *Ethnicity in Uganda* as the topic of interest (see section 7.3.5). Data from questionnaires, interviews and observations were aligned to the revised principles and responded to the research question, while also subjected to the hermeneutic cycle driven analysis. This systematic process is reflected in the proceeding sections.

9.5 Reflection of findings aligned to responses to the research questions

The reflection of key findings was structured around responses to research questions captured by the revised principles. In other words, the reflection aimed to discuss findings to the first and second research questions (see chapter 1, section 1.7) highlighted under the themes: construction of historicity on a Wiki platform, and authenticity of history meanings. For the purposes of uniformity and consistency, reflections followed the same headings and sub-sections (see chapter 7, sections 7.7& 7.7.1).

9.5.1 Construction of historicity on a Wiki platform (discussion of findings)

Step 1: to access and play

ETs and social media such as Facebook provided access and formed a dominant part of the lives of the participants in this research (see table 7.3), which formed a reliable base for the use of Wikis in history learning in Uganda. To this end, Mizuko et al., (2013) argue that today's students have countless accessible opportunities to share, create and expand their horizons through social media and online affinity groups. Moreover, students were able to gain access to the Hermwiki using their personal devices and available ICT infrastructure at Makerere University. Thus, the relevancy of obtaining access to online learning platforms through available tools and infrastructure within

particular pedagogical context was illuminated (see section 7.71). In agreement with this view, Salmon et al., (2010) attest to utilizing available ICT infrastructures and gaining access as vital for pedagogy in any online contexts.

Subsequently, students learnt how to engage with the Wiki through active play trials and dialogical interactions between content (PBWiki user guide and video), students and educator (see table 7.7). To this end, Fairfield (2015) argues that there is no pedagogical technique or learning technology that instills digital and dialogical competence, but that practice helps. Findings further suggested that it was possible for teachers to connect to the learners' thinking through engaging learners in active questioning and answering. In support of this view, Gadamer attests to questioning and answering as genuine dialogue aimed at reaching history understanding. These views were supplemented by the use of social media such as Wikis that enhanced sharing texts and videos, thereby making learning about the past active, visually engaging and interesting (see section 7.73). Gadamer acknowledges that through active involvement, play, trial and error and dialogical conversations, students can improve their understanding about the past (Porter & Robinson, 2011). Students found learning about the past through dialogue and play exciting as evident in the jokes made on the Hermwiki (see appendix C). Such students' views provided insights that were relevant in connecting linking to their interests and passions in the present.

My argument is that shared student participation in attaching meaning to the past makes learning interactive, flexible, interesting and fun. This research is therefore relevant and timely and apprehends the need for teachers/educators to connect to where students are in the present, potentially afforded by ETs and social media that today's students are passionate about. This approach is viewed as critical in today's study of history (Sebbowa et al., 2014) because it affords a process of enabling active participation in doing history through exploiting Wiki technologies that connect to today's students (Maloy et al., 2010). Correspondingly, Husbands (2003) encourages educators to engage with representations of the past littered through students' daily lives such as films, videos, audios and television as a way connecting to the present. This study has contributed to

this conversation by providing a pedagogical strategy (access and play page) that encourages informal learning structures while also arousing students' interest to learn about the past (see figure 7.2 and table 7.7).

Subsequently, results at access and play provided a partial answer to my research question one by revealing that historicity is constructed through connecting to the students' present lives by engaging with ETs, which are relevant in interesting students to empathize and actively participate in attaching meaning to the past (see section 7.7.3).

Step 2: to promote online introductions

At this step, students were able to make themselves „known online“ by indicating their name, year of study and share something interesting about their family history (see figure 7.3 and table 7.12). This was viewed as significant, as students were able to identify with their own past by sharing their family history in an innovative pedagogy using the Hermwiki. Moreover, my research has explicitly revealed that participants viewed family history as a means of cherishing cultural values, appreciating each other's cultures and heritages, sources of identity, preservation of culture, while also exhibiting an awareness of diversity among cultures (see section 7.8.0 and table 7.9). To this end, Seixas (1993) argues that family experiences and cultural values are more important in shaping the students' understanding of the past other than any other source of historical information. Thus, this study has demonstrated that students' interest can be aroused through linking the study of the past to their daily lives in the present. This pedagogical strategy provides a partial solution by arousing interest in today's students who find the study of the past worthless to their lives - a challenge earlier cited in literature (see chapter 2, section 2.8). This therefore suggests that history educators/ teachers ought to engage with content knowledge that captures students' lives in the present in reflection of what happened in the past. Also evident in this research was the desire for students to share and preserve their culture (avoid cultural erosion) through blending tradition with modernity (see section, 7.8.1). Such views are important as they are geared to attending to students' interests and thinking about the past.

The argument developed in this study is the important role that educators/ teachers have to play in identifying what topics interest students about the study of the past. In support of this view, Seixas (1993) argues that attending to students' pre-understanding of historical knowledge, based on their families and cultural inclinations could afford understanding of the relationships and differences between their families and communities and thus bridge a sense of unity and brotherhood other than diversity. Therefore the history curriculum developments and revisions should fully integrate and capture insights from family history and experience as a means of identifying with students' present lives. However, the contradiction in including students' views about sharing their family history in the curriculum is that they are, in most cases, subjective and biased (see section 7.8.1). To this end, Seixas (1993) suggests that if family history and cultures are to be appropriately integrated in the study of history in schools or at higher education institutions, there is need to provide a strict rules and procedure, and multiple understandings stipulated in the curriculum. Seixas further asserted that, there will be no means of assessing the many of myths and distortions that students might present.

Subsequently, an appreciation of the diversity (uniqueness) and contradictions between cultural heritages evidenced. For example, while some participants appreciated the cultural practice of FGM among the Sabiny in Northern Uganda, arguing that it reduces female promiscuity and acts as a source of respect in marriage. Others viewed the practice as barbaric and suggested that such practices should be banned or revised as they elicit disrespect to human rights (see sections, 7.8.1 and 7.9.1). The divergence in students' views illustrates the nature of history as a discipline that ought to be open to multiple views and perspectives based inferences and available evidence. In agreement with this view, Barton & Levstik (2003) argue that, students normally learn how the same evidence can lead to varied understandings while are also cognizant of the fact that people, culture and norms of the past harbor a different outlook than what happens today, given that, history is inherently a subjective discipline. My research prompts educators; teachers and students to engage in shared interpretations of various sources of evidence

about the past (analyze and weigh evidence, make inferences and judgments focused on achieving true understanding).

Dialogical conversation in form of questioning and answering between the students-students, students-educator as a fusion of horizon between the past (educator) and the present (student) were also evident at step 2. The dialogue was manifested during the pedagogical activities where peers commented about their family history, responded to each other's questions, while receiving supplements from the educator on the Hermwiki platform (see table 7.12). Therefore my research has revealed how educators/teachers can get students to identify areas of interest through dialogic relationships created on the Hermwiki. This understanding can be achieved through open dialogical conversations between students-students and students-educators as opposed to the behaviorists' approach reminiscent in most history lessons. Findings suggested that historicity was constructed by aligning students to their cultural/family heritages as a partial solution research question 1 (see section 7.11). In view of these arguments, my research points to shared construction of the cultural meanings (past) which closely aligns with the way today's students learn, mediated by the ETs as an innovation in History Education.

Step 3: to make shared interpretations of history meanings

Students consulted multiple sources to beef up their understanding of *Ethnicity in Uganda* as the topic of discussion. Sources of evidence included print and electronic textbooks, information from websites, visits to historical sites/ museums, reading fellow peers' posts on the Hermwiki, reading newspapers and interviewing elders (see table 7.13).

The position that I developed in this study was to embrace an innovative way of learning history by blending and integrating ETs with print sources in authentic environments and communities. This was particularly important in bridging the gap and initiating dialogical conversations between theory-practices, past-present and educators-students. In other words, learning becomes situational and constructed (Seipold, 2014) at „any time,“ „any place“. Hence, history classrooms lose the central position of the only formalized learning

environments, with other places, such as historical sites, ETs (Hermwiki) and the communities, becoming appropriate contexts for learning about the past.

The analysis suggested that students were able to learn to participate in reconstruction and „doing history“ through reading, interpreting and analyzing multiple sources of evidence (see table 7.14, analysis example 2). Belanger (2011) argues that a critical aspect of doing history is to understand that history is a matter of weighing different sources evidence and making informed interpretations. Literature reviews revealed that teachers predominantly transmit content knowledge about the past in most history classroom through anti-dialogical pedagogical sessions (see for example, Monte Sano, 2011 in chapter 1&2). My research is pertinent in demonstrating how students can participate in attaching meaning to the past by interpreting texts, images, pictures, and videos (about *Ethnicity in Uganda*) mediated by the affordances of Hermwiki. This was particularly manifested by interpreting texts and multimedia about the cultural practice of FGM among the Sabiny in Northern Uganda and Buganda Kingdom (see table 7.15). That said, literature highlighted the predominant existence of teacher authority and student „belief“ in teacher content knowledge with teachers providing a pervasive explanation needing to accomplish the prescribed syllabus (Barton & Levstik, 2003).

I have argued for an interactive pedagogy that allows democratic participation between educators/teachers and students in the process of constructing history meanings mediated by ETs (Hermwiki) as the way in which today's students learn (see table 7.16). Such shared interpretations of history meaning between the educator and the students provide new meaningful and creative insights to History Education relevant to the 21st century pedagogy. Borrowing Gadamerian language, the whole (past) is reconstructed in the part (present) through making interpretation to multiple perspectives (videos, images, pictures) thereby reaching harmony (following Gadamer, 2004; Risser, 2015).

Discussions of findings above suggest responses to answer my research question one as follows: historicity is constructed by attaching meaning to the past mediated by ETs/Wiki compatible with the way today's students learn. Construction of historicity is manifested

through open dialogical conversations among students and educators breeding into shared understandings of the past (see section, 7.11). Consequently, I engaged with the next step 4 to provide responses to research question 2 under the theme - authenticity of history meanings (see, section 7.12).

9.5.2 Authenticity of history meanings on the Wiki platform

Step 4: to support preconceptions about History Education

Results demonstrated that students' prior knowledge (prejudices and biases) about history teaching in Uganda depicted teacher-centered, focus on content coverage of the history syllabus and passing examinations (see table 7.19). Consequently, students suggested the use of learner-centered approaches, visits to historical sites to make learning real, and encouraged the use of ICTs to cater for the visual representation of the past (see section, 7.15 & 7.20). Thus, the preconceptions about History Education were relevant to linking to students' prior knowledge and current thinking about pedagogy.

Moreover, students' dialogical conversations on the preconception about history meanings on the Hermwiki platform was manifested through sharing, editing and commenting on each other's posts (see table 7.20). This suggests that representations and interpretations of the past are continuously subject to possible revisions and reviews afforded by the Hermwiki. In agreement with this view, Vance (2011) argues that Wiki pages are constantly interactive and can lead to „Wiki wars“ when people of one belief post their position and opposing believers edit it out, thus enhancing valid judgments in a history classroom. I have argued that such innovation in History Education would encourage educators/ teachers and students to validate each other's content thus enhancing new dimensions of understanding. Therefore my research is possibly of great significance in building or challenging students' pre-understanding through nurturing collaborative reviews and edits of each other's content (validation) mediated by the Hermwiki, thus exhibiting collaborative bias. These views contribute to the domain of history pedagogy given the paucity of research on utilizing students' prior knowledge in building shared understandings of the past.

Results further demonstrated students' consultation of multiple sources of historical information to validate their understanding of *Ethnicity in Uganda* (see, table 7.21). From this point of view, the relevance of analyzing both primary and secondary sources of evidence is pertinent in obtaining true understanding of what events actually happened in the past.

Consequently, in response to the research question two, results demonstrated that authenticity of history meanings is achieved through exhibiting awareness of prejudices and biases by building on students' prior knowledge to contribute to shared understandings. Authenticity of history meanings was also achieved through reading and interpreting multiple sources of historical evidence as a focus of validating history. Findings further suggested that history understandings were authenticated through engaging with dialogic questioning, answering and responding to peers supplemented by the educator on Hermwiki platform (see, section 7.17).

Step 5: to support open questioning and clarifications

Open questioning and clarifications were in response to the educator task that required participants to highlight the skills obtained from their engagement with construction of history meanings on the Hermwiki platform, while also suggesting methods that could facilitate the learning of history, particularly *Ethnicity in Uganda* (see section 7.10). The research revealed that students obtained a number of skills: collaborative, information literacy, reflective, history thinking, problem solving and analysis through their engagement with constructing history meanings on the Hermwiki (see table 7.17). These findings provided an insight into the significance of aligning history content knowledge with a set of generic skills adaptive the 21st century achieved through dialogical conversations of adding and editing (reviewing) each other's work. Consequently, Okeke & Dlamini (2013) advise educators to embrace the skilled-based history curriculum that can afford students to practice competencies and skills needed in today's labor market other than focus on history content.

Results further indicated that students would engage with different learning approaches such as group discussions, inquiry, case studies, project–field visits to historical sites and role play to emphasize dialogue in the history classroom that could be relevant to their future students (see table 7.18). These findings demonstrated that History Education ought to engage interchangeably with different pedagogical approaches that afford students to engage with dialogically constructions and interpretations of meanings of the past. For example, the use of case studies would enabled students to obtain an in-depth understanding of a particular society, field visits to historical sites would make students experience the real view of relics from the past; role play would capture empathy about the past, while inquiry methods would enable students to research and discover history in a way that is meaningful to them. Dull and Murrow,(2008), Burns (2014); and Barton (2015) argue that History Education pedagogies ought to engage in dialogue between students and teachers to enable students collaboratively answer the „how and why questions.“ This process is relevant in helping students manage their own learning about the past.

Subsequently, the dialogic approaches to learning history evident through open conversations between educators and students on the Hermwiki provided a good beginning to helping students learn in a socially democratic way, which if utilized would be relevant to their future students. From this point of view, I strongly argue for democratizing classroom learning about the past through the use of ETs (Wikis).

9.6 Reflection of the third implementation of the design solution

The third implementation of the design solution was premised on recommendations made at implementation 2 (see chapter 7). This iteration aimed to encourage participants to align the history meaning-making process (past) practically to solve their problems in the present. The implementation took place over six months but students’ postings were scattered across this period given that they were about to write their end of semester two examinations (see Appendix H). Only five volunteer students who had been part of the second implementation expressed interest in participating in the third implementation (see section, 8.2 and table 8.1). As a procedural process, a face-to-face workshop was

held where participants proposed the topic *Slave Trade in East Africa* given that the remnants of slave trade are still manifested in the contemporary world (see sections 8.3 and 8.4). Data collection at the third implementation was solely through observations on the Hermwiki focusing on the step 6.

Step 6: to support reflection and framing history

Findings at step 6 demonstrated a link between the study of the past (*Slave Trade in East Africa*) and students' lives in the present. This was substantiated in the following ways. Firstly, students were tasked to make an interpretation of *Slavery in East Africa*, cite examples of the remnants of slavery in the current situation and also suggest ways of overcoming such challenges (see figure 8.1). Subsequently students shared their understanding of slave trade/slavery through making contributions and uploading images on the Hermwiki (see table 8.1 and figure 8.2). Secondly, responses to the task above indicated that housemaids, criminals taken abroad to work, and human trafficking are some of the remnants of slavery in the present situation (see, table 8.2). It was further revealed that change of mindset and attitude towards unemployment/ poverty and provision of long life skills through education were key strategies in reducing the remnants of slavery in the contemporary situation.

In the context of this research, educators and teachers ought to link what they teach in class (theory) to solving students' daily problems. My argument is that students will gain interest and establish the relevance of studying history if they can use the content knowledge to influence and inform their decisions in the present. In support of this view, Thomson,(1969) and Husbands (2003) postulate that it is important to concentrate on the problems of the present, link the present closely with past, and to explore the past with only the present in mind and for the benefit of the present. However, these writers did not illustrate the process of how the past can be aligned with the present. Therefore my research was particularly pertinent in providing an authentic example of how students can use their knowledge obtained from the past (*Slave Trade in East Africa*) to solve problems in present (unemployment and poverty) as illustrated in table 8.2. I have argued that the relevancy of reflecting on the past in trying to understand the present can

realized through the potential affordances of ETs, social media and Wikis commensurate to the way today's students learn. In correspondence to the responses for research question 1, historicity is constructed through reflecting on the past to influence/inform decisions in the present or to use knowledge of the past to solve problems in the present.

9.7 DBR phase 4: reflection to produce design principles and enhance solutions

DBR phase 4 focused on the production of design principles on which research question 3 was premised (see section 8.6). Thus responses to question three - what design principles guide a pedagogical framework for construction of historicity - were obtained from a reflection of the transition changes in design principles echoed at the three implementations of the design solution (see tables 8.3 and 9.1). I have argued that the design principles were premised and operationalized by Salmon's five-stage model (see chapter 5). The idea of engaging with Salmon's model was to demonstrate that it is possible to work with an existing model so as to elicit a relationship between teachers and students hosted on a Herwiki (Sebbowa et al., 2014).

Correspondingly, table 9.1 summarizes the discussion of findings in alignment with the answers to the research questions highlighted under the reflection of design principles above.

Research question	Responses aligned to revised principles
Q1). How is historicity constructed on the Wiki platform among pre-service teachers at MU?	<p><i>In order to construct historicity, engagement with a Wiki should meet the following educational goals:</i></p> <p>To Access and play</p> <p>-To promote online introductions</p> <p>-To make shared interpretations of history meanings</p> <p>-To reflections and framing history</p>
Q2). How is authenticity constructed on the Wiki platform?	<p><i>In order to construct authenticity, engagement with a Wiki should meet the following educational goals:</i></p> <p>-To support preconceptions about History Education</p>

	-To support open question and clarification
Q3). What design principles guide a pedagogical framework for construction of historicity?	<p><i>The following design principles (outcomes) should be used to inform history pedagogy:</i></p> <ul style="list-style-type: none"> -To connect to the present -To appreciate heritage -To validate history -To do history -To promote dialogue in history -To apply history

Table 9.1: Responses to research questions linked to revised principles

The following table 9.2 presents a summary of the systematic procedural process and reflection of DBR phase 3 earlier illuminated in chapters 6, 7 and 8.

Item	Implementation 1 (see chapter 6)- Pilot study	Implementation 2 (see chapter 7)- Main study	Implementation 3 (see chapter 8)- Fine turning chapter
No. of participants	8 participants	20 participants	5 participants
History topic tackled	Manifestations of Neocolonialism in Uganda	Ethnicity in Uganda	Slave Trade in East Africa
Wiki type	Wikispaces	Hermwiki	Hermwiki
Design principles	Formulated design principles from Salmon's model	Revised design principles	Revised design principles
Duration of activity	December 2013 (3 weeks)	October 2014 to Oct 2015 (1 year)	October 2015 to March 2016 (6 months)
Methods of data collection	Interviews Observations	Interviews Observations Questionnaires Personal Blog entries	Observations

Table 9. 2: Reflecting changes of the three implementations mapped by DBR phase

The following section 9.8 provides a useful reflection on how issues of quality were handled in my research.

9.8 Issues of quality in this research

Issues of quality in this research were pertinent for two reasons. Firstly, to ensure that data collection and analysis was drawn in a systematic and reliable way such that conclusions drawn were credible and authentic. Secondly, validity and reliability are key determinants for interpreting the type of research conducted. Given that my study was qualitative, I adopted similar concepts of quality expressed as credibility, dependability, transferability and track ability (Guba, 1981; Bakker & Eerde, 2013). In other words, my research focused on specific qualitative types that are relevant to DBR as reflected in the proceeding sections.

9.8.1 Credibility

Credibility applies to the quality and trustworthiness of the data that leads to valid conclusions (Bakker & Eerde, 2014). Therefore, credibility or trustworthiness involves ensuring that the results of the research are convincing. In my research, credibility was exhibited as follows:

- Multiple methods of data collection were employed to ensure triangulation and richness of the data collected. For example, semi-structured interviews provided an open and in-depth picture on the how historicity is constructed and authenticated on a Wiki meaning-making environment. These were supplemented by semi-structured questionnaires and observations that provided an opportunity to obtain a more complete picture of constructing meanings at the pre-service history context in Uganda (see chapter 7). Moreover, each data collection method description supported the other, which helped to support the credibility of the research (see sections, 7.7.1; 7.7.2; 7.7.3). Crotty (1998) argues that collaborated interpretations and experiences with data are closely aligned to the philosophical underpinnings of the interpretive paradigm. The triangulation of data collection methods allows for a more robust interpretation of the learning context (Clark, 2013).

- The succession of DBR phase 3 procedural implementation processes: the first implementation of design solution involved eight participants taking history methods at Makerere University. Consequently, a reflection of the possibilities, challenges and lessons learnt were documented, which informed the second implementation of design solution (see chapter 6). Thus 20 participants comprising six third-year students; 11 second-year students and three PGDE students were involved at the second implementation of design solution (see chapter, 7). Similarly, recommendations from implementation 2 informed the decision to undertake the third implementation of design solution, which involved five participants (see chapter 8). In the context of this research, the cohort groups (participants) at the different implementation were relevant in testing and evaluating the design solution used in the research. As Bakker and Eerde (2014) said, the succession of different pedagogical experiments makes it possible to test the conjectures created in the research process.
- The research time: the data collection process was conducted for the period of three years from 2013-2016 (see chapters 6, 7 and 8). For example, implementation 1 was conducted within three weeks, implementation 2 was conducted within a period of one year while implementation 3 took six months (see table 9.2). Thus, the scattered periods of implementation allowed time for reflections, re-evaluations, redefining and modification of design principles and the research problem, which increased the chances of obtaining credible outputs of my research (see chapter 10).
- Given that data analysis followed the hermeneutic cycle driven analysis, disconfirming evidence such as deviant or negative cases were continuously adopted and used to refine the theory throughout the data analysis process of this research (see chapter 7, section 7.9.1). This was important in fitting all the outliers and exceptions of cases of data thus exhibiting the importance of the data collected.

9.8.2 Dependability

Dependability in qualitative research concerns the ability of the research to be reliable (Miles et al., 2014). Therefore, dependability of my research was demonstrated in the following ways:

- The DBR approach employed in this research illuminated that study procedures are documented in such a way that, if a researcher were to perform the same research again on the same case, similar systematic procedures would be followed (see section 4.6).
- All the steps taken at data analysis were recorded were guided by the hermeneutic cycle driven analysis (see section 4.8). Thus a systematic procedural structure of analysis was pertinent in ensuring that all the steps in the data collection and data analysis were kept (see appendix I)
- A reflective blog (record keeping) was kept to exhibit an awareness of my personal prejudices and biases about History Education (see appendix D).

9.8.3 Transferability

Transferability in qualitative research applies to instances where the concepts and theories generated can be applicable to similar contexts (Miles et al., 2014). Therefore, in this research, transferability was realized in the following ways:

- The research was documented in such a way that the context of the study was clearly defined and described in detail describing where the research was conducted (see chapter 2). Also, clarity on how the research was carried out guided by the DBR procedural process and how conclusions were systematically drawn from the data were presented (see tables 9.1 and 9:2). I found this relevant to determining the extent to which study results might be transferable or generalizable to other settings.
- My role as researcher in the study was explicitly highlighted (see section 1.2). This provided evidence of my ability to gain access and sufficient time to develop an intimate understanding of knowledge construction on the Wiki meaning

making environment and ensure record-keeping in the reflective blog (see appendix D).

- Moreover, the diverse groups of participants ensured that the research could be applicable and results transferred to similar contexts. For example, diverse cohorts of participants were evident at implementation 1, 2 and 3 (see tables; 6.2, 7.3 and 8.1).
- I published the results of the pilot study conducted at implementation 1 in a peer reviewed journal (see, Sebbowa et al., 2014). Correspondingly, preliminary findings of my research were presented at workshops and international conferences. I made paper presentations at the Emerging Technologies and Authentic learning in Higher Vocational Education Conference held in Cape Town, South Africa, 31 August – 3 September 2015; the International History Education Conference held in Durban, 8 - 9 December 2015 and the Distance Education Leapfrogging Annual Workshop held at Makerere University, 2 May 2016. The value of presenting my research at the different fora was that I gained a confidence in my research, and discussions and feedback provided were helpful in improving and re-defining my understanding of the research. Ajjawi and Higgs (2007) argue that, conference discussions provide opportunities for researchers to reflect on the emerging ideas during the process of presentation which is relevant in articulating the research content and process. Ajjawi and Higgs further highlight the significance of Conference feedback in ensuring credibility and transferability of the research findings to the settings of the practitioners in attendance.

9.9 Chapter summary

The chapter provided a reflection of how the DBR 4 phases (systematic activities) were implemented within my research. A discussion of research findings in alignment with the systematic procedural design principle steps was presented as aligned to the 1st, 2nd and 3rd implementation of the design solution. A systematic process of the transition in the design principles that resulted into the creation of guidelines/pedagogical framework for constructing historicity was highlighted.

The next chapter illuminates the practical output of the DBR process.

CHAPTER 10

THE THESIS CONTRIBUTION

10.0 Chapter Overview

This chapter begins by providing a brief review of the entire study research process. In reference to the DBR methodology, a procedural process was used to guide the design of a Wiki as the design solution aligned to design principles. Consequently, a theory driven pedagogical framework with design principles was developed mediated by Wikis as ETs. An implication of the research to practice is presented as well as the study limitations. The chapter ends with a conclusion together with my final word from the researcher.

10.1 Review of the overall research process

The aim of my thesis was to investigate how historicity is constructed and authenticated on a Wiki platform among pre-service teachers at Makerere University. The problem as outlined at the onset was the predominant engagement with behaviorist approaches in History Education that yielded into anti-dialogue between educators and students, thus making learning about the past boring and delinked to students' needs in the present (see chapter 1, section 1.1). My background and lived experience as a student and a teacher, compiled me to become curious as to why I personally found history lessons detached from my daily life (see, section 1.2). My course as an ICT in Education student shaped my thinking of exploring the potentials of engaging with ETs to link the study of the past to the present. In other words, my response to this challenge was to create dialogical conversations between the past (educator) and the present (students), focused on improving history pedagogy. In trying to operationalize this approach, I drew on the historical hermeneutic theoretical underpinnings to give me the language and explanatory power to find a solution to the problem (see, section 1.6).

I thought about connecting to students' current thinking in the present to interest them in finding relevancy to learn about the past. Given that most students today are connected

to social media platforms for various reasons like communicating with friends, networking, and obtaining updates on contemporary events among others (see chapter 7, table 7.3). I thought about using social media to connect to where students are in the present. I preferred the potential benefits of Wikis in History Education (see section 1.4) as they afford tracking the evolution and progression of constructed history meanings shared between the educator and students. That said, the intention of my research was to contribute to an understanding of using Wikis as an innovation in history pedagogy at higher education in a developing country (Uganda). As already highlighted above, the historical hermeneutics theory was relevant in facilitating dialogical interpretation of history meanings between the parts/ past and the whole/present (see chapter 3, section 3.5).

Consequently, my research questions were focused on investigating how historicity is constructed on a Wiki platform among pre-service teachers at Makerere University, how authenticity of history meanings is constructed on a Wiki platform and the design principles that guide a pedagogical framework for construction of historicity (see section, 1.7). The overall research and design activities were structured within a DBR approach. This approach was relevant in emphasizing the design of an educational intervention that would work in an authentic learning environment to address the contemporary pedagogical needs of students with the sole aim of improving History Education practice (see chapter 4). I employed the four phases of DBR as a procedural systematic approach to guide the process and implementation of my research (see chapter 4, table 4.3).

10.2 Theoretical contribution of the research

The theoretical contribution of this study lies in the approach of using DBR to implement systematically and operationalize historical hermeneutics constructs in History Education in the Ugandan context (see chapter 5, figure 5.1). Various studies have engaged with the hermeneutics phenomenology with an aim of achieving understanding in education (Turner, 2003; De Gagne & Walters, 2010; Abadia, 2011; Regan, 2012; Pamplin, 2014; Andrew, 2015), but none of these writers used historical hermeneutics constructs to

develop robust inventions to solve complex problems in educational practice. Correspondingly, historical hermeneutics constructs: historicity, dialogue, authenticity and fusion of horizon were evidently useful in providing an understanding of tradition/past (see chapter 3, section 3.5). Hence, the historical hermeneutics constructs were relevant in underpinning design principles as practical guidelines for teaching history using ETs-Wikis. I have argued that, DBR provided a systematic procedure for operationalizing the theoretical constructs (theory) together with the design principles (practice) for implementing robust interventions in history pedagogy. It stands to reason that, theory and practice must be taken in consideration if current pedagogy is to be improved (Tarling & Ng'ambi, 2016).

Given that, Gadamer does not provide a strategy of operationalizing historical hermeneutics constructs to enhance understanding of tradition or past. This study has contributed to this conversation by using DBR as a systematic procedural process and Salmon's five-stage model to operationalize design principles that have been applicable to History Education at the Makerere University context (see Chapter 8, table 8.3). In other words, DBR methodology was useful in implementing historical hermeneutical theoretical constructs, to be tested, refined through iterative cycles to be reflected in practice as guidelines/pedagogical framework that might enhance future study and implementation (see table 8.3).

Subsequently, a design solution to address the identified problem was proposed, drawing on Salmon's five-stage model (see chapter 5, figure 5.1). The relevancy of Salmon's five-stage model was to provide a guiding framework or existing draft design principles for dialogue and interaction in the Wiki pedagogical process by illuminating educator scaffolds and student roles. Moreover, the formulated design principles were premised on Salmon's five-stage model and the historical hermeneutics key constructs (see chapter 5, figure 5.1). It is worth noting that the proposed design solution at phase 3 was the Wiki meaning-making environment due to its affordance of enhancing participative writing and editing of history meanings by a group of users (students and educator). Following the design of a Wiki design solution, DBR phase 3 comprised iterative cycles of testing

and refinement of solutions in practice with in which responses to three research questions were provided (see, chapters 6, 7 and 8). DBR phase 3 was instrumental in providing a systematic procedural process through which implementations of the design solution were conducted through three different iterations until final guidelines for constructing historicity using ETs-Wikis were developed (see tables, 8.3 and 9.1). For purposes of this study, guidelines for construction of historicity will be used synonymously with guidelines for teaching history.

It is important to mention that, the final guidelines for construction of historicity mediated by ETs- Wikis were premised on Salmon’s five-stage model (see figure 5.1). As earlier mentioned, throughout the three different implementations, Salmon’s procedural steps were consistent, but the naming of the steps kept on changing to track the changes in the design principles (see table 8.3). Correspondingly, the names used for the final guidelines arose from the study findings, dominant themes, words, phrases such as; connect to the present, appreciate heritage, dialogue among others (see chapters 7 and 8). Consequently, table 10.1 below illuminates the difference between Salmon’s five-stage model and the proposed guidelines for teaching history using ET-Wikis.

Salmon on line model (2002)	Guidelines for teaching history using ETs-Wikis
Access and Motivation	Connecting to the present
Online Socialization	Appreciating heritage
Information Exchange	Dialogue in history
	Validating history
Knowledge Construction	Doing history
Development	Applying history

Table 10. 1: Differences between Salmon’s five-stage model and the guidelines for teaching history using ETs (Wikis)

Following table 10.1, the next section presents a detailed description of the guidelines as follows.

10.3 Practical contribution of the research

10.3.1 Connecting to the present

Following table 10.1, Salmon's (2002) „access and motivation“ requires teachers (e-moderators) to provide ongoing support to students to gain access, login and find the right place, while also motivating them to stay on line. Mokoena,(2013) advises educators to enhance motivation at the beginning of an online course by facilitating discussions on students' interests.

Correspondingly, in connecting to the present, a history teacher or educator should first find out if every student has access to computer devices and the internet. This could be achieved through sending out a survey to find out which type of access learners have in their particular contexts. Salmon (2014) suggests that each technological development should suit its context and culture. That said, since students get on board at different times and levels, peers can help each other through several trials to gain access informally through play online until all finally gain access. Access and play enables students to harness the Wiki (or any ET) to log in and play around and become orientated to learning with others. Students' participation through play (interesting introduction) is very important as it motivates and arouses their interest to stay on line (Salmon et al., 2010; Salmon, 2013). Teachers normally assume that students will continuously participate but if the activities are not enjoyable and too structured they will not participate. However, teachers should note that this can take some time, as access has proven to be a challenge in online learning environments (Moule, 2007; Mokoena, 2013).

The educators' role is to facilitate a process whereby students can be oriented to learn about the past in the present without any structures and ground rules through play (see chapter 7, figure 7.2). This view provides a new understanding to the problem re-echoed as contemporary students finding the study of the past boring and irrelevant to their present lives (see chapter 1, section 1.1). My argument is that connecting students to what interests them in the present certainly provides a remedy. This means that teachers who

want to facilitate learning about the past ought to link to students where they are at (interest and motivate them in ways that are meaningful to them). The rationale behind „connecting to the present“ is to reach students where they are in their present lives. Correspondingly, evidence provided through study findings demonstrated that all the 20 participants who engaged in this study were aligned to the social media, such as Facebook (see chapter 7, table 7.3) This suggests that teachers/educators can connect to students in this way and thus interest them to learn about the past using tools that are understandable and desirable to them. The position I develop in this study is that connecting to the present becomes successfully achieved when the history teacher is sure that students are comfortable and their interests are catered for on the Wiki meaning-making environment (any ET).

10.3.2 Appreciating heritage

In table 10.1, „appreciating heritage“ is aligned to Salmon’s second progression step, online socialization. The rationale for online socialization was to stress the relevance of socialization potentials to be built into e-tivities for successful online communities, and the development of student networks and friendships (Salmon, 2013), while the role of the e-moderator is to welcome and host introductions while requiring students to talk about themselves, build solid online cultural experiences, identities and trust. During the process of appreciating heritage, the history educator or teacher encourages students to introduce themselves and share something about their family history that interests them (see chapter 7, figure 7.3). I have argued for the importance of engaging student in activities that relate directly to their personal lives and interests. Hence, the educators/teachers’ role therefore shifts to that of facilitating and encouraging students to post, comment and ask questions about each other’s cultures afforded on Wiki meaning-making environment.

The rationale behind „appreciating heritage“ is to ensure that students feel part of history and identify with the past through sharing their cultural history (students share personal stories about their families). My research contribution was anchored in the new ways of learning through active student involvement in attaching meaning to the past mediated by

the Wiki meaning-making environment. This process was pertinent to students as they appreciated the relevancy of studying about the past, as opposed to the challenge of finding the study of history useful to their lives (my new understanding of the study problem). By appreciating their cultural heritages and identities, students became aware of the uniqueness and diversity in each other's cultures, while in the process built a social community and became more comfortable with each other's cultural identities (see table 7.9).

Salmon's next step is information exchange, closely aligned to validating history and dialogue in history, respectively presented.

10.3.3 Validating history

Salmon's progression step of information exchange involves an e-moderator providing direction through mass messages while encouraging participants to use the most relevant course content materials. Correspondingly, in validating history, the role of the educator/teacher is to scaffold the learning process by tasking students to read a variety of history texts while taking into consideration (exhibiting awareness) of the authors' intentions, context and time in which the texts were written and share this information mediated on the Wiki meaning-making environment (see table 7.21). Students on the other hand should attempt the educator's task, engage in open questioning and respond to each other's questions with a rationale of obtaining true understanding of the texts at hand (see section 7.10).

Subsequently, validating history engages with interpretation of multiple perspectives and views, such visits to history sites, oral tradition from elders, consulting multiple sources of history as evidence about the past to achieve understanding (see, table 7.13). In congruence with this view, Chapman, (2012); Havekes, Coppen, and Luttenberg, (2012) assert that History Education should absolutely aim at helping students explore and interpret multiple perspectives about the past, stimulate student's historical thinking and enable acquisition of historical knowledge. Indeed, the teacher's role at this step is to scaffold and respond to questions, supplement students' responses and also motivate

learners by providing feedback. Historical hermeneutics construct of dialogue between the part (past) and whole (attaching meaning of the history artifact in the present) was evident.

Validating history is informed by the historical hermeneutics construct of pre-understanding of one's knowledge if one is to achieve true history meaning (Porter & Robinson, 2011). Preconceptions about History Education links to prior understanding of what students already know about history pedagogy before they can gain a new understanding from collaboration with peers and educator (see, section 7.14). Following Gadamer (1975), the movement between the parts (present) and the whole (past) is echoed as one where one can't move forward before reflecting one's past. This vividly suggests that the construction of historicity connects with prior knowledge or something that existed before. In the same tone, Nichol (2002) argues that it is possible for historians to achieve a considerable authenticity, especially if they seek to be aware of the influences upon their own philosophy. In the context of this study, therefore, validating History is achieved when educators/teachers facilitate consultation from multiple sources and perspectives from the past, collaboration and dialogue in form of asking and responding to each other's questions (shared bias) mediated on a Wiki meaning-making environment. The next section presents dialogue in history.

10.3.4 Dialogue in history

Salmon's progression step of Information Exchange focuses on encouraging greater online participation, discussions in groups and interaction between participants in the e-learning course (Wright, 2015), while the guideline dialogue in History is influenced by dialogue through open questioning and responses between the educator, students and course content. Gadamer understands dialogical conversations as processes of reaching understandings where the interpreter is able to hear what the other has to say (Risser, 2015). Therefore, under this guideline, students engage in dialogue and make meaning to the history content shared by asking for clarifications and questioning in form of the conversations between the part (past) and the whole (present) on the Wiki meaning-making environment (see, table 7.14). The role of the educator is to guide and facilitate

the learning process by supplementing and complementing students' questions and answers. Thus, Gadamer's fusion of horizon between the past and the present is evidenced where the educator represents the past and the student represents the present.

10.3.5 Doing history

Salmon's step of knowledge construction focuses on frequent discussions, high-level interaction (e- moderator and participants) and knowledge and development aspects at the core. Subsequently, in „doing history“ students collaboratively interpret and attach meaning to the past by using the Wiki meaning-making environment as the mediating tool (see section, 7.9.0). The educator/teacher provides tasks that enhance learners to make their own interpretations by considering multiple sources; representations, relics from the past like videos and texts, and visiting elders as sources of evidence from which collaborative interpretations about history meanings are derived (see figure, 7.4). Making interpretation of history begins with the construct in the educator's mind of some aspect of the past; by means of words or pictures this representation of the past is conveyed to the student's mind. Hence, educator's words are significant in supplementing and complementing students' understanding about the past.

Online learning activities that require working on problems that have multiple interpretations prompt students to think deeply. This process therefore affords shared construction and interpretation of history knowledge between the educator and students mediated on the Wiki

(Sebbowa et al., 2014). Thus, „doing history“ unquestionably marks the development of focus on students in thinking historically (see table 7.17). Following Gadamer, „doing history“ resembles the process of becoming involved in an event – just like participation in play (Kogler, 1996; Gadaner, 2015).

10.3.6 Applying history

Salmon's step of development focuses on enhancing confidence among participants as they build on the ideas acquired through e-tivities, apply them to real life contexts at their workplaces (Wright, 2015). Thus, the development step is aligned to „applying

history” (see table 10.1), where educators/ teachers encourage students to reflect on the past and derive solutions that can solve real life problems in the present. Historical hermeneutics theory views human understanding as a realization of lived experiences in which we allow concepts to reveal themselves in our everyday lives (Porter & Robinson, 2011). For example, students were tasked to use their knowledge (lived experiences) acquired from the history methods teaching course and apply an appropriate teaching method that would enhance learning for *Slave trade in East Africa* (see chapter 8, figure 8.1). Under „applying history”, students are given the opportunity to apply skills they have acquired in learning history (theory out of school contexts (during school practice). This is significant as the past becomes relevant by making reflections aligned to students” lived experiences while solving today”s problems.

Stockdill & Moje,(2013) revealed that students tended to see less utility and personal connection to their school-based social studies learning, which was often represented as remembering names, dates and other facts, even as they engaged in exploring what were essentially social studies questions on their own. This suggests the importance of linking the theory covered in the history classroom to the actual practice in learners” day-to-day living. However, Haydn et al., (2015) observe that, a key challenge to history teachers is how to demonstrate the significance of learning history in the present situation in a convincing manner to gain students” interest in the subject. Nonetheless, „applying history” is very important as students link the past to the present through drawing lessons from the past to derive solutions of solving problems in the present (see table, 8.2). This therefore suggests that aligning the relevance of studying the past to students” lives provided a solution and a new understanding of my study problem.

That said, guidelines are further illustrated in table 10.2 below highlighting the practical contribution of my research.

Guidelines for teaching history using ET-Wikis	Supporting Features	Guiding reflections
Connecting with the present -History Education absolutely connects with	-Learners have access to an online space (Wiki, Facebook) and connected learning -Share images, pictures,	-Do you want to connect to students where they are at in present? -Do you want to capture learners” attention in the contemporary world?

<p>students in the present.</p> <p>-Firstly, teachers should establish where they are at; which tools they will use to obtain access.</p> <p>- There are no ground rules and structures at this level; learning through play, several trials and encounters.</p> <p>-Secondly, teachers can work off line with print materials; CD ROMS (Salmon, 2013) which perfectly caters for areas without internet.</p>	<p>videos in history</p> <p>-Learning history is fun and exciting through participation.</p>	<p>-Do you want learning about the past to be exciting and interesting in the contemporary world?</p> <p>-Do you want to motivate today's students to study the past?</p> <p>- Do you want to support students' learning from a distance in areas without internet connectivity?</p>
<p>Appreciating heritage</p> <p>-History pedagogy must link to students' lives in the present to make them feel part of the past.</p> <p>-Embrace learning about students' own past by catering for their own cultures, family history.</p> <p>-This absolutely encourages preservation of cultural heritages from one generation to another.</p>	<p>-Connect history to the students' life and thinking</p> <p>- Learners share family history stories about their lineages and ancestral backgrounds.</p> <p>-Learning through dialogue, sharing family history pictures, videos (helps learners to identify with their past).</p>	<p>-Do you want students to learn about the past in ways that are more meaningful to them?</p> <p>- Do you want attract learners' thinking about the past?</p> <p>- Do you want learners to feel part of and identify with the past?</p> <p>- Do you want students to have a sense of cultural heritage?</p> <p>- Do you want students to appreciate unity and diversity in culture?</p>
<p>Dialogue in history</p> <p>-Indeed, history pedagogy should encourage talk and conversations as a means of attaching meaning to the past.</p> <p>-This is perfectly achieved through open questioning and answering aimed at understanding history.</p>	<p>-Engage dialogical conversations between students-students, students-educator.</p> <p>- Dialogue as alignment between the past and students' present</p> <p>-Engage in open questioning and answering sessions aimed at achieving understanding</p>	<p>-Do you want students to be part of the history meaning-making process?</p> <p>-Do you want students to engage in shared conversations between the past and the present?</p> <p>- Do you want shy students to engage in the art of questioning and answering?</p> <p>- Do you want students to think historically?</p>
<p>Doing history</p> <p>-History teaching utterly engages students in active, interpretations of the representations (relics) left by the past through sharing texts,</p>	<p>-Engage students in co-construction of history through open question and answering, sharing and making sense of representations of the past, images, videos, pictures</p>	<p>-Do you want students to participate in attaching meaning to the past?</p> <p>Do you want to motivate, interest today's students in learning about the past?</p> <p>-Do you want to engage students in reconstruction of their own history?</p>

videos, images.		
Validating history -History teaching uniquely involves consultation from multiple sources of evidence in consideration of the context, author's motives	-Analyzing multiple sources of history evidence -Open questioning of when, where, and how of the past events	- Do students achieve true history understanding? - Are students aware of the significance of the prior knowledge in trying to gain understanding of the past? -Do students know that their personal interests, historical backgrounds contribute to valid history meanings?
Applying history -History Education perfectly engages with the past through reflecting on students' real life experiences	-Students view history through their personal experiences and perspectives -Linking theory within the history discipline into actual practice in the classroom.	-Do you want students to utilize knowledge obtained from the past to solve their current problems? -Do you want students to use the past to satisfy their current needs? -Do students reflect on their lived experiences to challenge today's pedagogical problems inherited from the past?

Table 10. 2: A summary of the Practical study contribution.

Following table 10.2, the position I develop in this study is that, although ETs like Wiki have been used for pedagogical purposes for over 20 years (Konieczny, 2016), there are very few studies that have engaged with construction of history meanings (historicity) mediated by a Wiki intervention. This study was premised on the historical hermeneutics theoretical constructs that provided the language for implementation and addressing the research problem. In view of this argument therefore, connecting to students' current thinking in the present and thus interesting them in learning about the past using ETs that are available in their current practices is potentially valuable in linking theory to practice. Hence, the study has used Wikis as an example of ETs used by students in the present to create dialogical conversations between the part (past) and the whole (present) aligned to the way 21st century students learn. Borrowing from the Gadamerian language, this study has reflected a fusion of horizon between past-present; reflected in the theory-practice approach. This is visually represented in the proposed theory driven pedagogical framework as reflected in figure 10.1.

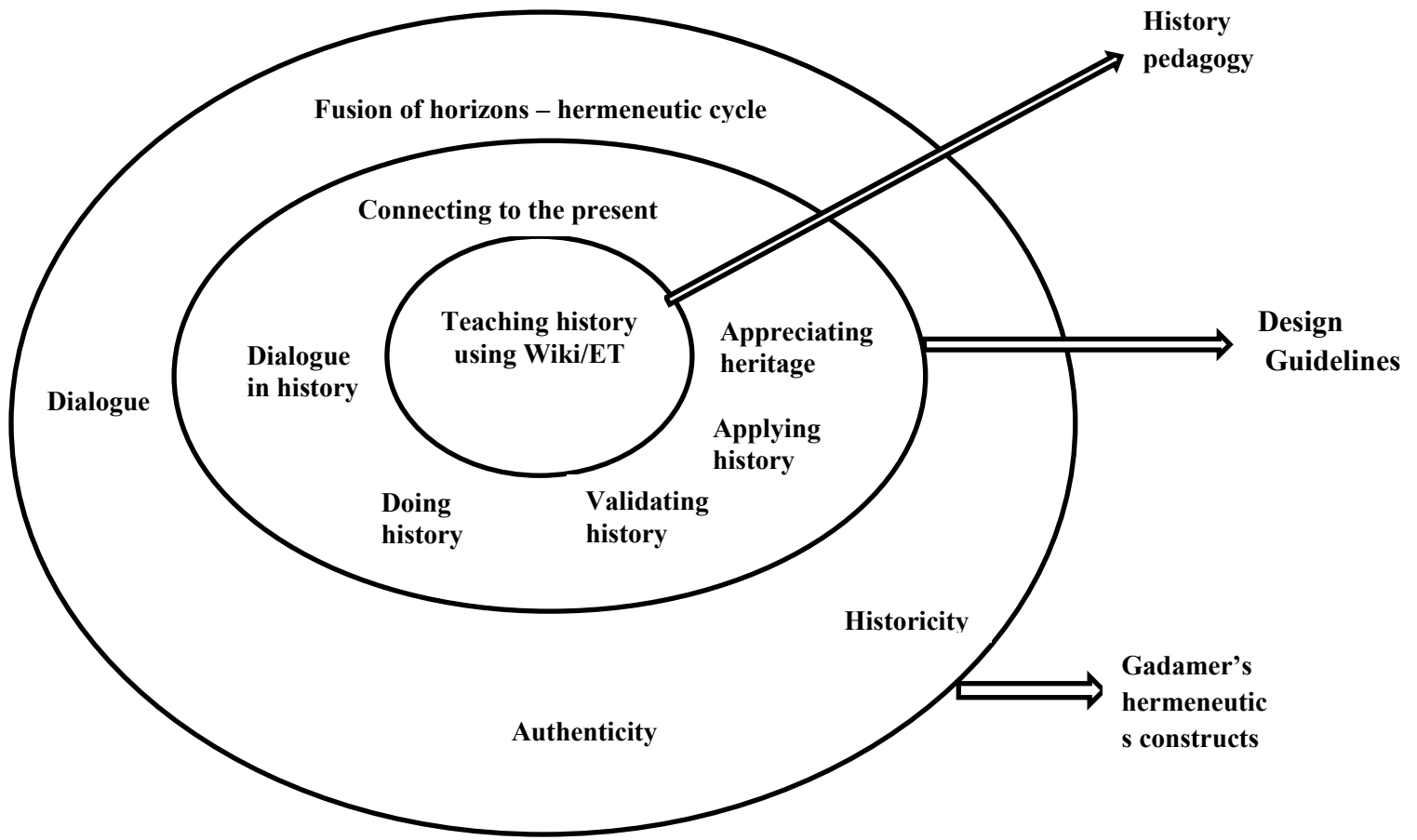


Figure 10.1 Theory driven pedagogical framework for teaching history using Wikis -ET

Inferred from figure 10.1, the theory driven pedagogical framework is layered in three parts aligning theory to practice. The outer layer illustrates the Gadamer's hermeneutic constructs; fusion of horizon- hermeneutic cycle, historicity, dialogue and authenticity. Hence theory was relevant in informing the process of developing the design guidelines (middle layer) and the final history pedagogical practice of teaching history using Wikis/ET (inner layer/nuclear).

The next section deals with reflectivity.

10.4 Reflectivity and researcher positionality

I align with Van Manen (2007)'s understanding of reflectivity and positionality where the researcher uses empathy or lived experiences to enhance data analysis and interpretation of meaning. Reflexivity involves a self-scrutiny on the part of the researcher; a self-conscious awareness of significance of researcher beliefs, cultural and educational background on the research process (Bourke, 2014). Therefore, given the belief in the primacy of subjectivity in interpreting History Education, my argument is that, the importance of addressing reflectivity and positionality in hermeneutics phenomenology as theoretical lens cannot be emphasized enough (Sloan & Bowe, 2014). This is relevant as it is one crucial factor that can influence the process of data gathering and the authenticity of the research process. Therefore, the decision to undertake this study focusing on the potential affordances of ET, particularly Wikis as an innovation in history pedagogy, was influenced by my personal, educational and professional background, interests and beliefs (see chapter 1.2).

Thus, reflectivity involved my positionality in understanding my roles as teacher educator and researcher undertaking a study with research participants who are my students. This therefore gave me an „insider“ position which seemed beneficial while also posing negative challenges to the research process. Considering the benefits, my dual position as a teacher-educator and researcher afforded me easy access to different cohorts of students“ participants who took part in the research (see tables 6.2, 7.3 and 8.1). Following the DBR approach, my research spanned a longer period of time, over three years (2013-2016) therefore utilizing the institutional learning context over a long period of time proved beneficial to me as an insider.

However, insider position could have led to my bias in selecting the study participants as only those who I teach on the history methods course participated in this research process. Moreover, consideration was given to only those who owned and had easy access to internet enabled devices, were on social media platforms and expressed interest in joining the Hermwiki project (see chapter 4). In essence this compromised in-depth

data that would have been obtained from varied number of participants (see chapter 10, cited as a limitation to the study).

As a teacher-educator (insider) responsible for facilitating the history methods course (see chapter, 2), I was able to engage with the Wiki design intervention as a mediating tool to enhance dialogical conversations between the educator and students (see chapter 5). I found this relevant in improving history pedagogy given that 21st century students are exposed to social media platforms and ETs and consequently learn differently (see table 7.3). In support of this view, Tarling & Ng'ambi (2016) argue that the ubiquitous availability and integration of technology into teacher education is transforming how today's students learn. Moreover, as an insider collecting data from my own students sometimes the participants did not understand my role as a researcher and instead referred to me as their „lecturer.“ To this end, Jimmy- Gama (2009:143) argues that, if participants are familiar with the researcher as their teacher, they might respond in a way they know will not offend the researcher's known or perceived identity. I therefore took it up on myself to document all the participants' views in ways that were respectful to their actual contributions (see appendices A and B).

Also, my „insider“ position as researcher and educator prompted me to make reflections of data gathering and aspects of the research process. For example, I noted down my pre-conceptions and reflections about teaching history before I listened to what the students had to say about the same (see chapter 7, section 7.13). This was relevant in two ways. Firstly, it helped me obtain new insights and dimensions from what the students said and, secondly, it improved my understanding of monitoring the existence and impact of reflectivity in this research. As earlier argued, it is important to exhibit awareness of one's P&Bs and thus willingness to listen to what the other has to say.

Another important part of understanding my position as a researcher lay in focusing on Crotty's theoretical framework (see chapter, 3) that afforded my insider role as I got in an intensive and sustained contact with the participants. Therefore following, the adoption of constructionism as the epistemological stance and interpretivism particularly historical

hermeneutics as the theoretical perspective. I continuously reflected on Gadamer's hermeneutic view that, there is no interpretation that does not bring into play the interpreter's own prejudice and thus stress for the need for self-awareness and understanding (Abadía, 2011) .

10.5 Implication of the study

I have argued that, pedagogical approaches reminiscent in the history classrooms place strong emphasis on the teachers' authority and memorization of history content viewed as highly subjective. This prompted me to think about two questions: firstly, about the nature of the history content knowledge taught and secondly, how history content knowledge is constructed and what approaches are used to share such knowledge.

My thinking was focused on the importance of shared construction of meanings about the past between teachers and students. This was significant; as it would link to students' thinking, encourage democratic participation in learning with multiple perspectives and interpretations of the past. Highly influenced by the historical hermeneutics theory, I also thought about how such collaborative constructions of history meanings could be validated to obtain true meanings. As already mentioned above, my lived experience as ICT in Education student already shaped my thinking about the possible exploration of ETs and social media as a new dimension and innovation in History Education (see section 1.2). From this point of view, I engaged with ETs and social media with a potential to mediate dialogue between teachers, educators and students as a way of addressing the study problem referred to above. Moreover, ETs potentially facilitated students to participate in attaching meaning to the past (sharing historical videos, images and texts) thus arousing their interest to learn about the past (see chapter 7, table 7.15). It is against such a backdrop that ET, particularly Wiki intervention, was conceptualized to mediate dialogical conversations that fused the gap between the past (students' ideas) and the present (teacher's expertise).

I believe my study could significantly contribute to innovation and creativity in history education by using ETs-Wikis through the developed theory driven pedagogical

framework. This is deemed relevant because if contemporary students employ my framework in pedagogy, they should never feel disconnected and delinked from learning about the past. From this point of view therefore, students will attach relevancy and feel part of history and will certainly communicate the past through generations.

In reference to the theoretically driven pedagogical framework (see figure 10.1); my argument is that, it is possible for educators and teachers to follow the design guidelines and design effective teaching strategies of History Education involving ETs more specifically Wikis.

10.5.1 Implication to researchers

This study will enable researchers to further understand the interplay between the hermeneutic cycle, historicity, dialogue, authenticity and teaching 21st Century students (see figure 10.1). In view of this argument; it is evident that the use of ETs that students have (see table 7.3) can potentially transform History Education from a passive subject to an active learning subject in correspondence with the way today's students learn.

There is often an outstanding criticism that history pedagogical research does not align theory and practice in solving real life educational challenges (Chapman, 2012; Keating & Sheldon, 2011 & Nokes, 2015). Correspondingly, Cochram (2010) highlights the importance of closing the gap between how history is practiced as a discipline and how history is taught at educational institutions. Whereas historians use modes of inquiry to construct contrasting narratives based on evidence; schools and teachers often view history as a single accurate narrative of the past focused on factual events, dates and personalities (Bain, 2005; Cochram, 2010). Thus, there is a great disjuncture between History Education research and what is actually practiced in schools. Hermeneutics reminds us that, while there is no unbridgeable divide between education and practical life, there is a distance there that must be preserved (Fairfield, 2015). In support of this view, Gadamer argues that advancing human understanding lies on a combination (application) of both the theoretical and practical if we all do it well (Porter & Robinson, 2011).

Correspondingly, a bulk of research conducted is left on library shelves and does not impact practice as teachers never ever get to know how to change or improve their daily pedagogical practices. *Personally, I have always wondered why History Education research is conducted if it does not influence practice?* In my own opinion, the future of history pedagogy lies in its preservation as authentic and relevant to classroom practice; this involves closing the gap between History Education research, theory and actual practice in schools and at educational institutions. My argument is that without informing practice, conducting History Education research becomes irrelevant and useless. It is the role of the researcher and teacher-educator as a practitioner to put the practice in action. For example, my consultations with practitioners to establish the current status of history pedagogy seemed significant because these people are directly involved in daily teaching practices and are therefore reliable agents of pedagogical change (see chapter 4, section 4.6.1).

10.5.2 Implication to history educators and teachers

This research also helps contribute to demystifying History Education theories highlighted in literature (see chapter 2). In particular, my pedagogical framework for teaching history using ET-Wikis could bring innovation and enhance practices for history teachers, pre-service teachers (students) and educators in the following ways:

- To connect and access students' thinking in the present and thus help address their real life challenges (students' needs).
- To appreciate their cultural heritages, identities and diversity in culture; this is relevant in making students feel part of history (see relevancy in learning about the past)
- To engage in dialogical conversations about the past as this is relevant in bringing about democratization in learning and citizenship.
- To engage in obtaining true understanding of the past through shared negotiations aimed at validating history meanings.

- To engage in doing history through making collaborative interpretations and reconstruction of history albeit the belief of one single accurate correct story of the past.
- To apply history through reflecting on the past to derive solutions that can address contemporary real life problems thus linking theory to History Education practice (see, table 10.3).

Following, the proposed lower secondary curriculum reforms and review of courses in the teacher training programmes at Makerere University (see chapter 2). It is my hope and expectations that the insights in this thesis could add value and trigger ways of thinking about content knowledge and technology enhanced learning deemed relevant to policy makers, teacher educators, and teacher training institutions towards improving the quality of learning.

Thus, my conclusion is that, if teachers and educators can engage with my pedagogical framework, and then the relevancy of studying history could be realized, survive and blossom through different generations. Consequently, the proceeding section presents the limitation of the study.

10.6 Limitations of the study

Firstly, this research faced a challenge of limited scholarship on field of History Education in Africa, particularly Uganda. Although there is a paucity of literature on history pedagogical practices in Africa, and Uganda, it is my belief that my work provides insights into further discourses in History Education that will serve as a base and a mouthpiece of history pedagogy at this context.

Secondly, the limited number of participants who engaged with this study may not have been representative of the general status of History Education at Makerere University. I have argued that, the different cohorts of students in different years of their study proved advantageous in increasing the ability to transfer the results of the findings from my study to similar educational contexts in Uganda, Africa and the world at large.

Thirdly, there was a conflict of interest in my „insider“ role as educator and researcher undertaking a study with my own students. I have highlighted in my reflectivity and positionality that this may have brought about tensions between the researcher and the researched and also compromised the data collection process (see section, 10.4). As earlier highlighted, I ensured proper documentation and recorded the research activities in the research blog site which improved the monitoring process while also upholding the ethical codes and considerations with my participants.

Fourthly, the qualitative data analysis interpretations were subjective in nature (Miles et al., 2014). As my research was purely qualitative, it harbors highly subjective interpretations of findings that might be possibly revised if the same research is executed by another author at a particular point in time. If I may borrow the Gadamerian language, such a limitation is viewed as the fusion of horizon between the past (author of this thesis) and the present (reader of thesis) continuously occurs over and over again. Each time another person reads the findings of my work they may form their personal understanding and interpretation. To this end, I strongly suggest that this thesis ought to be read and interpreted with an open mind.

In spite of these limitations, this research provides a good start for dialogical conversations and construction of history meanings between the educator and students mediated on an ET (Wikis) that can perfectly benefit history teachers and educators.

10.7 Conclusions of the study

This research was initiated to support history teachers to embrace pedagogical approaches aimed at arousing students' interest, identification and engagement in the study of the past. The study viewed ETs, and social networks such as Wikis as useful environments that today's students are growing up with (Vance, 2011) and therefore their likeliness to utilize such forums to interest students in learning about the past. Consequently, I engaged students (pre-service teachers) and educator collaboratively to construct history meanings such as *Ethnicity in Uganda* through researching and

analyzing multiple sources of evidence such as videos, pictures, images and text as representatives of the past, mediated on the Wiki (see, chapter 7).

My research has demonstrated how educators/teachers can identify with passions and areas of interest to students through dialogical conversations mediated on the Wiki as a lens from the present. This certainly provides useful insights to pre-service teachers in finding the study of history relevant and highly aligned to their current lives, which (philosophically) they are likely to transfer to their future students. I have proposed a pedagogical framework in the form of guidelines for teaching history using ET (Wikis) as a relevant pedagogical innovation and lens commensurate to today's students. In other words, history teachers can unquestionably link the past to students' thinking in the present. This pedagogical framework is certainly timely and contributes to current international and contextual debate on decolonizing the curriculum and making it relevant to the local students' needs (see chapter 2).

In this research, Wikis particularly empowered students to create knowledge and validate history content (adding and editing each other's work) as a review process, which attached great significance to ruling out bias and subjectivity in interpretation of history meanings (see chapter 7). Consistent with this view, Vance (2011) argues that the history-tracking feature of the Wiki proves to be vital in enabling educators to identify any plagiarism and by building confidence among students. Thus, this research has demonstrated that students absolutely can think historically and analyze primary and secondary sources of evidence given the affordances of Wikis as mediating tools adaptive to the 21st century pedagogy (see chapter, 7).

However, it's worth mentioning that some limitations were recorded during the research such as utilization of primary sources like visits to sites proved to be expensive, Wiki login challenges, Internet fluctuations were a great impediment to construction of history meanings, and some students were slow and could not ably cope with the dialogical conversations on the Wiki platform. In the context of this research, I argue that continuous trainings and refresher courses for students and teachers should be conducted;

technical and infrastructural support should be provided if ETs/ Wikis are to be successfully integrated in pedagogical practices.

My study has extended the usefulness of Salmon's five-stage model from its original context and framework of guiding asynchronous learning on online forums for predominantly European contexts. To formulating progression guidelines for teaching history using ETs-Wikis applicable to the African context, particularly Ugandan education. This study has unquestionably engaged in testing ways to think about technology, and use Salmon's five-stage model to structure educator and student activities. This might be applicable to history educators, teachers and pre-service teachers so that they may feel easy about using other technologies within their own practice. This is deemed pertinent as it adds to the conversation on how educators should think about technology in their pedagogical contexts.

Consistently, my study demonstrates that history educators, teachers, and pre-service teachers must determine which learning theory is appropriate to their goals when embracing technology in history pedagogy. For example, thinking about the historical hermeneutics theory is useful if a teacher wants students to learn through dialogue between the part (students' ideas) and the whole (teachers' expertise). Integrating the use of dialogical learning approaches to enable students collaboratively answer the how and why questions as they manage their own learning while also thinking about ways of solving their problems in future as opposed to behaviorist approaches that condition meaningful learning.

10.8 Recommendations for further research

- Regarding the practical contribution, this study has proposed a framework in form of guidelines for teaching history using ETs- Wikis. Could a similar methodological approach, DBR approach be followed to develop a pedagogical framework for a science-based disciplines or humanities and language disciplines? Moreover, in consideration of the theoretical contributions of the study. The DBR lens would be used to implement and

operationalize another theoretical underpinning in an epistemological stance to generate knowledge about the past in an authentic pedagogical context.

- The outstanding criticism and disjuncture between what is taught at teacher education institutions of learning-theory and the actual teacher practices- practice (Cochran, 2010). The DBR approach followed in this research emphasized the theory to practice approach (Akker et al., 2013). Thus, a study conducted with in-service history teachers and how they can implement the developed design principles for teaching history using ETs in an authentic classroom context would yield interesting results. This would be relevant in getting insights to how teachers view and utilize the ETs in the teaching and learning of history. Or could the findings from this research be implemented at another learning context such as high school or at a different institution or country?
- Given increasing use of social media platforms among students (see chapter 7; table 7.4). The developed pedagogical frame work or design principles would be implemented with another social media platform such as face book, instagram, discussion forum, blog as a meaning making platform for teaching history to 21st century students of History Education.

10.9 Final words

History Education must be reflected in practice by addressing authentic challenges in the present. It appears to me that the success of the History Education field will depend on the extent to which the gap between theory and practice is reduced. My hope is that this thesis has contributed to the reduction of this gulf. Moreover, this research has shown that the developed guidelines for teaching history using ETs-Wikis offer a groundbreaking solution to be implemented in authentic educational contexts focused on addressing the illuminated research challenge.

This has been my research journey: *towards a pedagogical framework for construction of historicity among pre-service teachers at Makerere University mediated by ETs-Wikis.*

REFERENCES

- Abadía, O. M. (2011). Hermeneutical contributions to the history of science: Gadamer on “presentism.” *Studies in History and Philosophy of Science Part A*, 42(2), 372–380.
<http://doi.org/10.1016/j.shpsa.2010.12.003>
- Abdallah, M. (2013). Employing a Three-phase Design-based Research Methodology for Expanding Student Teachers “Language-related Literacy Practices in an Egyptian Pre-service English Education Programme. In T. Plomp & N. Nieveen (Eds.), *Educational Design Research* (pp. 927–946). Enschede, Netherlands.
- Adeyinka, A. A. (1991). *The Objectives and Methods of History Teaching in Kwara State Senior Secondary*. Retrieved from <http://tinyurl.com/poo8849>.
- Aguti, J. N., & Fraser, W. J. (2006). Integration of Information Communication Technologies (ICTs) in the Distance Education Programme ,Makerere, Uganda. *Turkish Online Journal of Distance Education*, 7(3).
- Ajjawi, R., & Higgs, J. (2007). Using Hermeneutic Phenomenology to Investigate How Experienced Practitioners Learn to Communicate Clinical Reasoning. *The Qualitative Report*, 12(4), 612–638.
- Akker, J., Bannan, B., Kelly, A., Nieveen, & Plomp. (2013). *Educational Design Research: An Introduction*. (T. Plomp & N. Nieveen, Eds.). Enschede, Netherlands.
http://doi.org/10.1007/978-1-4614-3185-5_11
- Alhajri, S. (2013). *Developing a pedagogical model to enhance and assess creativity in Omani graphic design education*. Loughborough University.
- Anderson, D. L., Standerford, N. S., & Imdieke, S. (2010). A self-study on building community in the online classroom. *Networks-An Online Journal for Teacher Research*, 12(2), 1–10.
- Anderson, T., & Shattuck, J. (2012). Design-Based Research: A Decade of Progress in Education Research? *Educational Researcher*, 41(1), 16–25.
<http://doi.org/10.3102/0013189X11428813>
- Andrew, F. (2015). *Paths of becoming: A Hermeneutic Phenomenological inquiry into teacher candidate professional self- understanding*. University of Ottawa, Canada.
- Apostolidou, E. (2012). Teaching and Discussing Historical Significance with 15 year -old students in Greece. *International Journal of History Teaching , Learning and Research*, 11.1, 7–24.
- Bain, R. (2005). *They thought the world was flat, applying the principles of How people Learn in Teaching High school History*. Retrieved from
<http://books.nap.edu/openbook.php?isbn=0309089484&page=179>
- Bain, R., & Mirel, J. (2006). Setting up Camp at the great instructional divide: educating beginning history teachers. *Journal of Teacher Education*, 57(3), 212–219.
<http://doi.org/10.1177/0022487105285892>
- Bakkabulindi, F., & Adebajo. (2011). Organizational Characteristics and Use of Personal Computer Software by Graduate Students in Makerere University *. *Us- China Education , Review*, 3, 331–338.

- Bakkabulindi, F. E. K., Sekabembe, B., Shopi, J. M., & Kiyingi, G. (2009). Effect of Qualification in ICT , Age and Income on Use of Computers among Postgraduate Students in Makerere University School of Education. *Journal of Science and Sustainable Development*, 2(1).
- Bakker, A., & Eerde, D. Van. (2014). An Introduction to design-based research with an example from Statistics education. *Doing Qualitative Research: Methodology & Methods in Mathematics Education*.
- Barab, S., & Squire, K. (2004). Design Based Research: Putting a stake in the ground. *Journal of Learning Sciences*, 12(1), 1–14.
- Barton, K. (2015). History Education for Democratic Participation. In *2015 International Conference on History Education in Africa, University of Kwazulu Natal*. Durban: Unpublished paper presentation.
- Barton, K. C., & Levstik, L. S. (2003). Why Don “t More History Teachers Engage Students in Interpretation ? *Social Education*, 67(6), 358–361.
- Becher, T., & Trowler, P. (2001). *Academic Tribes & Territories. Intellectual enquiry and the culture of disciplines*. (2nd ed.). Bury St. Edmunds, Suffolk: The Society for Research into Higher Education & Open University Press.
- Belanger, E. (2011). How Now? Reflective teaching & Next Generation of History Teachers. *The Journal of American History*.
- Bennmayor, R. (2008). “Digital story telling as signiture pedagogy for the new humanities. *Arts and Humanities in Higher Education*, 7(2), 188–204.
- Bourdillon, H. (Ed.). (1994). *Teaching History*. New York: Routledge.
- Bourke, B. (2014). Positionality: Reflecting on the research process. *The Qualitative Report*, 19(33), 1–9.
- Bower, M. (2008). Affordance Analysis, Matching Learning Tasks with learning Technologies. *Educational Media International*, 45(1), 3–15.
- Bozalek, V., Ngambi, D., & Gachago, D. (2013). Transforming teaching with emerging technologies : implications for Higher Education Institutions of learning . *South African Journal of Higher Education*, 27(2), 419–436.
- Brown, A. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions. *Journal of the Learning Sciences*, 2, 141–178.
- Brown, S., & Drake, P. (2003). *History Education in the United States and*. New York.
- Bryman, A. (2012). *Social Research methods* (4th ed.). New York: Oxford University Press.
- Burns, A. (2014). The Jewel in the Curriculum: Teaching the History of the British Empire. *International Journal of Historical Learning, Teaching and Reasearch*, 12.2, 109–121.
- Carliner, S., & Shank, P. (Eds.). (2008). *The e-Learning Handbook: Past promises, present challenges*. New York: Pfeiffer.
- Carr, E. H. (1961). *What is history?* (R. . Davies, Ed.) (2nd ed.). New York: Pelican Books Ltd.
- Caverly, B. D. C., & Ward, A. (2008). Techtalk : Wikis and Collaborative Knowledge Construction. *Journal of Development Education*, 32(2), 2007–2008.

- CEES Strategic plan. (2011). *Makerere University, College of Education and External Studies Strategic plan*. Kampala.
- Chapman, A. (2012). "They have come to differing opinions because of their differing interpretations."Developing 16-19 year old English students" understanding of Historical interpretation through on-line Inter- instituional discussion. *International Journal of Historical Learning, Teaching and Research*, 11.1, 188–214.
- Ciydem, E. (2012). The mission of history education in forming future. *Procedia Social and Behavioral Sciences*, 46, 1028–1031.
- Clark, A. (2008). *A Comparative study of history teaching in australia and canada final report*.
- Clark, S. K. (2013). Research by Design : Design - Based Research and the Higher Degree Research s tudent. *Journal of Learning Design*, 6(2).
- Clegg, A., Bregman, J., & Ottevanger, W. (2007). *Uganda Secondary Education & Training Curriculum , Assessment & Examination (CURASSE) Roadmap for Reform*. Kampala.
- Cochran, M. (2010). *Teaching Historical Thinking: The challenge of Implementing Reform Minded Practices for Three First year teachers*. University of Maryland.
- Cole, M. (2009). Using Wiki technology to support student engagement lessons from trenches. Retrieved from <http://www.cbilt.soton.ac.uk/multimedia/PDFsMM09/Using Wiki to support%2>
- Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design Research: Theoretical & Methodological Issues. *Journal of Learning Sciences*, 53(4), 5–23.
- Coltham, J., & Fines, J. (1971). *Educational Objectives for the study of History. A suggested Framework*. London: Chameleon Press.
- Crane, B. (2012). *Using Web2.0 and Social Networking Tools in K-12 Classroom*. Huron Street,Chicago: Neal Schuman.
- Creswell, J. (1998). *Qualitative Inquiry and Research Design choosing Among five Traditions*. (D. Laughton, E. Carr, & D. Axelsen, Eds.) (1st Editio). London: Sage Publication Ltd.
- Crotty, M. (1998). *The Foundation of Social Research* (1st Editio). London: Sage Publication Ltd.
- Cubukcu, F. (2012). Gadamer" Philosophical Hermeneutics on Education. *Journal of Educational & Instructional Studies in the World*, 2(2).
- CURASSE. (2013). *Social Studies Revised Syllabus*. Kampala.
- Davies, I. (2010). Education for Citizenship. Issues in History Education. *Evaluation and Research in Education.*, 11(3), 119–128.
- De Gagne, J., & Walters, K. J. (2010). The Lived Experience of Online Educators: Hermeneutic Phenomenology. *Journal of Online Learning and Teaching*, 6(2), 357–366.
- DesignBasedResearch, C. (2003). Design -based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 31(1), 5–8.
- DesignBasedResearchcollective. (2003). Design -Based Research: An emerging paradigm for educational inquiry. *Educational Researcher*, 32(1), 5–8.
- Dhuwaib, J, H, A. (2013). Referencing Methodology in Teaching Histiry. *Procedia - Social and*

- Behavioral Sciences*, 89, 283–287.
- Dramani-Issifou, Z. (2010). *Report on the current state of History Teaching in Africa. Pedagogical use of the General History of Africa*.
- Dull, L. J., & Murrow, S. E. (2008). Theory & Research in Social Education Is Dialogic Questioning Possible in Social Studies Classrooms ? *Theory and Research in Social Education*, 36(4). <http://doi.org/10.1080/00933104.2008.10473381>
- Eriksson, T., Bergbom, I., & Lindahl, B. (2011). The experiences of patients and their families of visiting whilst in an intensive care unit - A hermeneutic interview study. *Intensive and Critical Care Nursing*, 27(2), 60–66. <http://doi.org/10.1016/j.iccn.2011.01.001>
- Fage, J. . (1981). *General History of Africa 1: Methodology and African prehistory*. (J. K. Zerbo, Ed.). United Nations Educational, Scientific and Cultural Organisation.
- Fairfield, P. (2015). Hermeneutics and Education. In J. Malpas & H.-H. Gander (Eds.), *The Routledge companion of Hermeneutics* (pp. 541–549). New York: Routledge, Taylor & Francis group.
- Ferrance, E. (2000). *Themes in Education: Action Research*. New York: The Education Alliance: Brown University.
- Fleming, V., Gaidys, U., & Robb, Y. (2003). Hermeneutic research in nursing : developing a Gadamerian-based research method. *Nursing Inquiry*, 10(2), 113–120.
- Fleta, M., Sabateur, P., & Carmen. (2011). Knowledge construction & knowledge sharing: A wiki based Approach. *Social and Behavioral Sciences*, 28, 622–627.
- Gachago, D., Ivala, E., Backhouse, J., Bosman, J. P., & Bozalek, V. (2013). Towards a Shared Understanding of Emerging Technologies : Experiences in a Collaborative Research Project in South Africa. *The African Journal of Information Systems*, 5(3).
- Gadamer, Hans, G. (1989). *Truth and Method*. (J. Weinsheimer & D. Marshall, Eds.) (second edi). New York: The Continuing Publishing Corporation.
- Gadamer, H. G. (1975). *Truth and Method* (First). New York: The Continuing Publishing Corporation.
- Gadamer, H. G. (1985). *Gadamer's Hermeneutics; A Reading of the Truth and Method*. (J. Weinsheimer, Ed.). New York: Yale University Press.
- Gadamer, H. G. (2004). *Truth and Method*. (J. Weinsheimer & D. Marshall, Eds.) (3rd ed.). London, New York: Continuum International Publishing Group.
- Gander, H.-H. (2015). Gadamer: The Universality of Hermeneutics. In J. Malpas & H.-H. Gander (Eds.), *The Routledge companion of Hermeneutics* (pp. 137–147). New York: Routledge, Taylor & Francis group.
- Gjesdal, K. (2015). History and Historicity. In J. Malpas & H.-H. Gander (Eds.), *The Routledge companion of Hermeneutics* (pp. 299–309). New York: Routledge, Taylor & Francis group.
- Gokcearslan, S., & Ozcan, S. (2008). Place of Wikis in the learning and teaching process. *Procedia - Social and Behavioral Sciences*, 28, 481–485.
- Gonzalez, F. (2015). Hermeneutics in Greek philosophy. In J. Malpas & H.-H. Gander (Eds.), *The Routledge companion of Hermeneutics* (pp. 13–23). New York: Routledge.

- Gray, D. . (2009). *Doing Research in the real world*. (2nd ed.). London: Sage Publication Ltd.
- Gu, X., Shao, Y., Guo, X., & Ping, C. (2015). Internet and Higher Education Designing a role structure to engage students in computer-supported collaborative learning. *The Internet and Higher Education*, 24, 13–20. <http://doi.org/10.1016/j.iheduc.2014.09.002>
- Guba, E. (1981). Criteria for assessing the trustworthiness of naturalistic Inquiries. *Eric/ ECTJ*, 29(2), 75–91.
- Hadjerrouit, S. (2014). Computers in Human Behavior Wiki as a collaborative writing tool in teacher education : Evaluation and suggestions for effective use. *Computers in Human Behavior*, 32, 301–312. <http://doi.org/10.1016/j.chb.2013.07.004>
- Harris, L. M., & Girard, B. (2014). Instructional significance for teaching history: A preliminary framework. *Journal of Social Studies Research*, 38(4), 215–225. <http://doi.org/10.1016/j.jssr.2014.02.003>
- Havekes, H., Coppen, A., & Luttenberg, J. (2012). Knowing and Doing History: A Conceptual framework and pedagogy for teaching Historical contextualisation. *International Journal of Historical Learning, Teaching & Research*, 11.1, 72–93.
- Haydn, T. (2001). Subject discipline dimensions of ICT & Learning: History a case study. *International Journal of Historical Learning, Teaching & Research*, 2(1), 17–36.
- Haydn, T. (2010). Coltham& Fines“ Educational Objectives for the study of History: What use or relevance does the paper have for History Education in the 21st Century. *Interntional Journal of Historical Learning, Teaching& Research.*, 9(1).
- Haydn, T. (2011). Using ICT in the teaching of History. Retrieved December 21, 2015, from http://www.history.org.uk/resources/secondary_resource_4121_126.html
- Haydn, T. A., & Barton, R. (2006). Common needs and different agendas: How trainee teachers make progress in their ability to use ICT in subject teaching. Some lessons from the UK. *Computers and Education*, 49(4), 1018–1036. <http://doi.org/10.1016/j.compedu.2005.12.006>
- Haydn, T., Stephen, A., Arthur, J., & Hunt, M. (2015). *Learning to Teach History in the secondary school. A companion to school experience* (4th Editio). New York: Routledge.
- Heng, T, L., & Marimuthu. (2012). Let’s Wiki in class. *Social and Behavioral Sciences*, 67, 269–274.
- Herodutus. (1890). *The history of histories* (Volume one). London and Newyork: MacMillian and Co.
- Herrington, A., Herrington, J., & Mantei, J. (2009). Design principles for mobile learning. In J. Herrington, A. Herrington, J. Mantei, I. Olney, & B. Ferry (Eds.), *New technologies, new pedagogies: Mobile learning in higher education*. Faculty of Education, University of Wollongong (p. 138). <http://doi.org/10.1007/s11423-013-9297-2>
- Herrington, J. (n.d.). Design -Based research planning template(version 3). Retrieved April 4, 2015, from http://authenticlearning.info/DesignBasedResearch/Design-based_research.html
- Herrington, J. (2006). Authentic E-learning in higher education: Design principles for authentic learning environments . In *Tasks in world Conference on ELearning in Corporate, Governemnt, Healthcare& Higher Education(ELEARN)* (pp. 3164–3173). Hawaii.

- Herrington, J. (2010). Revisiting the link between teaching and learning Research & practice: Authentic learning and Design Based Research. In *International Conference for Teaching and Learning*. International Association for Scientific Knowledge.
- Herrington, J., McKenney, S., Reeves, T., & Oliver, R. (2007). Design-based research and doctoral students: Guidelines for preparing a dissertation proposal. *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications*, 4089–4097.
- Herrington, J., Reeves, T. ., & Oliver, R. (2010). *A Practical guide to authentic e-Learning*. New York: Routledge.
- Herrington, J., & Reeves, T. C. (2011). Using design principles to improve pedagogical practice and promote student engagement. In Williams.G, N. Statham, N. Brown, & B. Cleland (Eds.), *Proceedings ascilite 2011* (pp. 594–601). Retrieved from <http://www.scopus.com/inward/record.url?eid=2-s2.0-84870769433&partnerID=40&md5=8175e94457e82b8e86cf7a73eb5c60e3>
- Hillis, P., & Munro. (2005). ICT in History Education - Scotland & Europe. *Social Science Computer Review*, 23(2), 190–205.
- Historical Association. (2007). Teaching Emotive and Controversial History 3-19, 48.
- Husbands, C., Kitson, A., & Pendry. (2003). *Understanding History: Teaching & Learning about the past in secondary schools*. Open University Press.
- ICT, P. (2012). *National ICT policy for Uganda*. Kampala. Retrieved from -www.ict.go.ug
- Jakes, D. (2006). Wild about Wikis. Retrieved April 14, 2016, from <http://www.techlearning.com/story/showArticle.jhtml?articleID=191801354>
- Jimmy -Gama, D. . (2009). *An assessment of the capacity of faculty- based youth friendly reproductive health services to promote sexual and reproductive health among unmarried adolescents: evidence from rural Malawi*. Queen Margert University.
- Judd, T., Kennedy, G., & Cropper, S. (2010). Using Wikis for collaborative Learning, Assessing collaboration through contribution. *Australasian Journal of Educational Technology*, 26(3), 341–354.
- Kagoda, A. M., & Itaaga, N. (2013). A Survey of Teacher Trainees’ Expectations, Experiences and Assessment in Uganda. *Journal of Educational and Social Research*, 3(August), 43–52. <http://doi.org/10.5901/jesr.2013.v3n5p43>
- Takeeto, M. B., Tamale, M. B., & Nkata, J. (2014). The Secondary School History Curriculum Objectives and their Influence on National Integration: Stakeholders Perspective. *International Journal of Innovative Social & Science Education Research*, 2(1), 1–9.
- Kane, G, S., & Fichman, R. (2009). The shoe makers’s children: using wikis for Information systems, Teaching, Research& publications. *Mis Quarterly*, 33(1), 1–22.
- Karugire, S. . (2010). *A Political History of Uganda*.
- Keating, J., & Sheldon, N. (2011). History in Education, Trends and Themes in History teaching 1900-2010. In I. Davies (Ed.), *Debates in History teaching* (pp. 5–16). London: Routledge.
- Kelly, A. (2003). Theme Issue: The role of design in educational research. *Educational Research*, 32(1), 3–4.

- Kogler, H. H. (1996). *The power of Dialogue: Critical Hermeneutics after Gadamer and Foucault*. Massachusetts: Library of Congress Cataloguing -in -publication Data.
- Konate, D. (2010). *Review of the contents of the General History of Africa*.
- Konieczny, P. (2007). Wikis and wikipedia as a teaching tool. *International Journal of Instructional Technology and Distance Learning*, 4(1). <http://doi.org/10.5210/fm.v0i0.3583>
- Konieczny, P. (2016). Teaching with Wikipedia in a 21st -Century Classroom: Perceptions of Wikipedia and its educational benefits. *Journal of Association for Information Science & Technology*, 67(7), 1523–1534.
- Kovacic, A., Bubas, G., & Zlatovic, M. (2008). E-tivities with a Wiki: Innovative teaching of English as a foreign language. *Visions IT, Visions for IT in Higher Education*.
- Kuhn, T. (1962). *The structure of Scientific Revolutions*.
- Kuo, J., Song, H., Smith, R., & Franklin, T. (2007). A Comparative Study of the Effectiveness of an Online and Face-to-Face Technology Applications Course in Teacher Education. *International Journal of Technology in Teaching & Learning*, 3(2), 85–94.
- Lee, J. (2002). Digital History in the History/ Social Studies. *The History Teacher*, 35(4), 503–517. Retrieved from <http://www.jstor.org/stable/1512472>
- Lee, J. K., Doolittle, & Hicks, D. (2006). Social Studies and History Teachers “Uses of Non-Digital and Digital Historical Resources. *Social Studies Research and Practice*, 1(3), 291–311.
- Leiviskä, A. (2015). The Relevance of Hans- Georg Gadamer “s concept of Tradition to the philosophy of Education. *Education Theory*, 65(5), 581–600.
- Lincoin, Y. ., & Guba, E. . (2000). Paradigmatic Controversies, Contradictions & emerging confluences. In N. Denzin & Y. . Lincoln (Eds.), *A hand book of qualitative research* (2nd ed., pp. 163–188). Sage Publication Ltd.
- Loren, A. (2014). Philosophical Hermeneutics: A tradition with promise. *Universal Journal of Educational Research*, 2(2), 188–192.
- Lundin, R. W. (2008). Teaching with Wikis : Toward a Networked Pedagogy. *Computers and Composition*, 25, 432–448. <http://doi.org/10.1016/j.compcom.2008.06.001>
- Macdonald, J., & Black, A. (2010). Disciplinary Knowledge practices in Distance Education Testing a new methodology for teaching enhancement in History. *Arts and Humanities in Higher Education*, 9(1), 69–86.
- Makerere University Educational Technology Strategy. (2010). *Makerere University Educational Technology Strategy*.
- Maloy, R. W., & LaRoche, I. (2010). Student-centered teaching methods in the history classroom: Ideas, issues, and insights for new teachers. *Social Studies Research and Practice*, 5(2), 46–61. Retrieved from http://www.academia.edu/420967/Student-Centered_Teaching_Methods_In_the_History_Classroom_Ideas_Issues_and_Insights_for_New_Teachers
- Maloy, R. W., Poirier, M., Smith, H. K., & Edwards, S. A. (2010). The Making of A History Standards Wiki : Covering , Uncovering , and Discovering Curriculum Frameworks Using a Highly Interactive Technology. *The History Teacher*, 44(1).

- Maro, W. (2013). *Design and Evaluation of a professional Development Programme to support Activity Based Biology teaching and Learning in Tanzanian Secondary Schools*. University of Southampton.
- Martin, P., & Kirthi, P. (2010). Effective use of Wikis in College Mathematics Classes. *Systematics, Cybernetics & Informatics*, 8(6), 76–78.
- Maxwell, J. (2005). *Qualitative Research Design; An Interactive Approach*. (L. Shaw, M. Crouppen, & M. Birdsall, Eds.) (2nd ed.). New York: Sage Publication Ltd.
- Mayes, T., & de Freitas. (2004). *Review of e-Learning theories, frameworks & models*. London: Joint Information systems. Retrieved from <http://www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy/outcomes.aspx>
- Mc Call, J. (2013). *Gaming the past. Using Video Games to teach secondary History*. London and Newyork: Routledge, Taylor& Francis group.
- McCullough. (2008). Gulliver. Retrieved from http://history.vassar.edu/docs/gulliver/gulliver_2008_fall.pdf
- McKenney, S., & Reeves, T. (2012). *Conducting Educational Design Research*. New York: Routledge, Taylor& Francis group.
- McLoughlin, C., & Alam, S. (2014). A case study of Instructor scaffolding using web 2.0 tools to teach Social Informatics. *Journal of Information Systems Education*, 25(2), 125–136.
- Miles, M., Huberman, M., & Saldana, J. (2014). *Qualitative Data Analysis , a methods source book*. (H. Salmon, K. Perry, K. Koscielak, & L. Barrett, Eds.) (3rd Editio). London: Sage Publication Ltd.
- Ministry of Education and Sports. (2001). *The Development of Education in Uganda in the last ten years*. Kampala.
- Ministry of Education and Sports, & National Curriculum Development Centre. (2008). *History teaching Syllabus: Uganda Certificate of Education; Senior 1-4*. Kampala. Retrieved from http://www.ibe.unesco.org/curricula/uganda/ug_sc_hs_2008_eng.pdf
- Ministry of Education Science Technology and Sports Republic of Uganda. (2015). *Education, Science, Technology & Sports sector annual performance report FY 2014/15*. Kampala. Retrieved from [http://www.education.go.ug/files/downloads/pRint ESSAPR FY 2014-15 Prefinal 9\(1\) - final.pdf](http://www.education.go.ug/files/downloads/pRint ESSAPR FY 2014-15 Prefinal 9(1) - final.pdf)
- Minocha, S., & Thomas, P. (2007). Collaborative Learning in a wiki environment: Experiences from a soft ware engineering course. *New Review of Hypermedia& Multimedia.*, 13(2), 187–209.
- Misgeld, D., & Nicholson, G. (1992). *Hans-Georg Gadamer on Education, Poetry, and History: Applied Hermeneutics. Hans-Georg Gadamer on education, poetry and history*.
- Mizuko, I., Gutierrez, K., Livingstone, S., Penuel, B., Rhodes, J., Salen, K., ... Craig, W. (2013). *Connected Learning: An agenda for Research and Design*. Irvine, CA.
- Mohamud, A., & Whitburn, R. (2014). Unpacking the suitcase and finding history: Doing Justice to teaching of diverse histories in the classroom. *The Historical Association*, 154(40).
- Mokoena, S. (2013). Engagement With and Participation in Online Discussion. *The Turkish Online Journal of Educational Technology*, 12(2), 97–106.

- Monte-Sano, C. (2011). Learning to open up History for student: Preservice teachers' emerging pedagogical content knowledge. *Journal of Teacher Education*, 62(3), 260–272.
- Monte-Sano, C., & Budano, C. (2013). Developing and Enacting pedagogical content knowledge for teaching History. *The Journal of Learning Sciences*, 22, 171–211.
- Moule, P. (2007). Challenging the five-stage model for e-learning : a new approach. *Research in Learning Technology*, 15(1), 37–50. <http://doi.org/10.1080/09687760601129588>
- Mufumiko, F. (2006). *Microscale experimentations as a catalyst for Improving the Chemistry Curriculum in Tanzania*. University of Twente.
- Muirhead, B. (2002). E-tivities: The key to active online learning. *Journal of Educational Technology and Society*, 5(4), 179–181.
- Mulumba, M. B. (2016). Improving student teachers "knowledge-base in language education through critical reading. *Pedagogy, Culture and Society*. <http://doi.org/10.1080/14681366.2016.1196233>
- Musoke, R. (2014). *Second Phase of O- level Curriculum reforms begin*. Kampala.
- Muyanda-Mutebi, P. (1996). *An Analysis of Primary Education Curriculum in Uganda including A Framework for A Primary Education Renewal*.
- Nabushawo, H. (2013). *Development of Teacher Competencies through Distance Education: A case study of History teachers of Bachelor of Education External Degree Programme*. Makerere University, Uganda.
- Ndidde, A., Lubega, J., Babikwa, D., & Baguma, G. (2009). *Pedagogical Integration of ICTs in Ugandan educational institutions*. Kampala.
- Ndoye, M. (2010). *Pedagogical use of the General History of Africa - Conceptual Framework*.
- Newman, D. (1990). Opportunities for research on the organisational impact of school computers. *Educational Researcher*, 19(3), 8–13.
- Ng'ambi, D. (2013). Effective and ineffective uses of emerging technologies: Towards a transformative pedagogical model. *British Journal of Educational Technology*, 44(4), 652–661. <http://doi.org/10.1111/bjet.12053>
- Ng'ambi, D., Brown, C., Bozalek, V., Gachago, D., & Wood, D. (2016). Technology enhanced teaching and learning in South African higher education – A rearview of a 20 year journey. *British Journal of Educational Technology*, 47(5), 843–858. <http://doi.org/10.1111/bjet.12485>
- Nichol, G. (2002). What is the use of history? Retrieved from <http://hca.ltsn.ac.uk/history/h-journal>.
- Niekerk, A. (2002). Hermeneutics & Historical Consciousness: An Appraisal of the contribution of Hans Georg Gadamer. *South African Journal of Philosophy in Tribute to Hans-George Gadamer*, 21(4).
- Nokes, J. D. (2015). Cutting Edge Theory and Research in Assessing Historical Thinking. *Theory & Research in Social Education*, 43(3), 435–440. <http://doi.org/10.1080/00933104.2015.1064557>
- Nsibirano, R. (2009). Him & Her - Gender differentials in ICT Uptake: A critical Literature

- review and research agenda. *International Journal of Education and Development*, 5(5).
- Ntabeni, M. (2012). Lesotho government policies and History Education in the twenty first century. *International Journal of Historical Learning, Teaching and Research*, 11.1, 157–168.
- Okeke, C., & Dlamini, C. (2013). An empirical study of stressors that impinge on teachers in secondary schools in Swaziland. *South African Journal of Education*, 3(1), 1–12.
- Pamplin, L. (2014). *Understanding the lived Experience of the Social Principal*. University of Calgary.
- Parker, J., Maor, D., & Herrington, J. (2013). Authentic online learning: Aligning learner needs, pedagogy and technology. *Issues in Educational Research*, 23(227), 227–241. Retrieved from <http://ier.org.au/ier23/parker.html>
- Parker, K. R., Chao, J. T., & Green, B. (2007). Wiki as a Teaching Tool. *Interdisciplinary Journal of Knowledge and Learning Objects*, 3, 57–72. <http://doi.org/10.1600/036364409789271191>
- Patterson, M. E., & Williams, D. R. (2002). *Collecting and Analysing qualitative data: Hermeneutic principles, methods and case examples*. Saga more Publishing.
- Piaget, J. (1970). *Logic and Psychology*. (N. Mays, Ed.). Basic books.
- Pifame, M., & Li, L. (2011). Teaching how to learn with a wiki in primary education: what classroom interaction can tell us. *Learning, Culture and Social Interacion*, 102–113.
- Polman, J., & Westhoff, L. (2004). Digital History in an after school learning environment: Developing Pre-service teachers' pedagogical content knowledge and historical thinking skills of Youth. In *Annual meeting of the American Reseach Association*. San Diego, California.
- Porter, S. E., & Robinson, J. C. (2011). *Hermeneutics: An Introduction to Interpretive Theory* (Vol. 16). Wm. B. Eerdmans Publishing. Retrieved from <https://books.google.com/books?hl=en&lr=&id=eZFM9Jcq8W4C&pgis=1>
- Prensky, M. (2001). "Digital natives, digital immigrants part 2. Do they really think differently?" *On the Horizon*, 9(6), 1–6. Retrieved from <http://www.emeraldinsight.com/journals.htm?issn=1074-8121>.
- Punch, K. (2009). *Introduction to Research methods in Education* (1st Editio). London: Sage Publication Ltd.
- Reeves, T. ., Herrington, J., & Oliver, R. (2005). Design Research: A socially responsible appraoch to instructional technology research. *Journal of Computing in Higher Education*, 16(2), 97–116.
- Reeves, T. ., McKenney, S., & Herrington, J. (2011). Publishing & Perishing: The critical Importance of educational design research. *Australasian Journal of Educational Technology*, 27(1), 55–56.
- Reeves, T. C. (2006). Design research from a technology perspective. *Educational Design Research*, 1(3), 52–66.
- Regan, P. (2012). Hans-Georg Gadamer "s philosophical hermeneutics : Concepts of reading , understanding and interpretation. *Research in Hermeneutics, Phenomenoilogy and Practical*

- Philosophy*, IV(December), 286–303.
- Risser, J. (2015). Dialogue and Conversation. In J. Malpas & H.-H. Gander (Eds.), *The Routledge companion of Hermeneutics* (pp. 335–343). New York: Routledge, Taylor & Francis group.
- Roberts, P. (2010). *From Literacy to a pedagogy of History: A discussion paper*. Retrieved from <http://leadingcurriculum.blogspot.com/2010/06/national-symposium-building-bridgesfor>.
- Salmon, G. (2002). *E-tivities : The key to active online learning* Reviewer. (Muirhead Brent, Ed.).
- Salmon, G. (2002). *E-tivities: the key to active online learning*. London and New York: Routledge.
- Salmon, G. (2013). *E-tivities ; The key to active online learning* (2nd ed.). London, New York: Routledge.
- Salmon, G. (2014). Learning Innovation: A framework for Transformation. *European Journal of Open, Distance & E-Learning*, 17(2).
- Salmon, G., Nie, M., & Edirisingha, P. (2010). Developing five-stage model of learning in second life. *Educational Research*, 52(2), 169–182.
- Savich, C. (2009). Improving Critical Thinking Skills in History. *Online Submission*, 11(2). Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED501311&site=ehost-live&scope=site>
- Sebastián, M., Cosme, G., & Jorge, O. (2014). History Education under the new Educational Reform in Spain: New wine in old bottles. *International Journal of History Teaching , Learning and Research*, 11.1, 122–132.
- Sebbowa, D. (2015). Using Wikis to preserve History Education in the 21st Century at Makerere University: A hermeneutic perspective. In *2015 International Conference on History Education in Africa, University of Kwazulu Natal*. Durban: Unpublished paper presentation.
- Sebbowa, D., Ngambi, D., & Brown, C. (2014). Using Wikis to teach History Education to 21st Century Learners: A Hermeneutic perspective. *Critical Studies in Teaching and Learning*, 2(2), 24–48. <http://doi.org/10.14426/cristal.v2i2.34>
- Seipold, J. (2014). Mobile learning: Structures, Concepts and Practices of the British and German. *Mobile Learning Discussion from a Media Education*, 20–52. Retrieved from www.medianpaed.com
- Seixas, P. (1993). Historical Understanding among Adolescents in a Multicultural Setting. *Curriculum Inquiry*, 23(3), 301–327. <http://doi.org/10.2307/1179994>
- Seixas, P. (1996). *Conceptualizing the growth of Historical Understanding. The Handbook of Education and Human development*. (D. . Olson & N. Torrance, Eds.). Blackwell Publishers.
- Siemens, G., & Tittenberger, P. (2009). *Handbook of Emerging Technologies for Learning*. Retrieved from [http://www.umanitoba.ca/learning technologies/cetl/HETL.pdf](http://www.umanitoba.ca/learning%20technologies/cetl/HETL.pdf)
- Sloan, A., & Bowe, B. (2014). Phenomenology and Hermeneutic Phenomenology : the Philosophy , the Methodologies and Using Hermeneutic Phenomenology to Investigate

- Lecturers "Experiences of Curriculum Design Phenomenology and Hermeneutic. *Quality and Quantity*, 48(3), 1291–1303.
- Smythe, E. a., Ironside, P. M., Sims, S. L., Swenson, M. M., & Spence, D. G. (2008). Doing Heideggerian hermeneutic research: A discussion paper. *International Journal of Nursing Studies*, 45(9), 1389–1397. <http://doi.org/10.1016/j.ijnurstu.2007.09.005>
- Ssekawa, J. . (2001). *History & development of Education in Uganda*. Kampala: Fountain Publisers.
- Stake, R. (1995). *The Art of Case study Research*. London, New Dehli: Sage Publication Ltd.
- Stanford, M. (1994). *A Companion to the study of History*. Massachusetts: Blackwell Publishers.
- Stearns, P. (1996). Teaching and Learning in Lectures. In A. Booth & P. Hyland (Eds.), *History in Higher Education* (pp. 97–111). Massachusetts: Blackwell Publishers.
- Stockdill, D., & Moje, E. (2013). Adolescents as Readers of Social Studies: Examining the Relationship between the Youth 's Everyday & Social Studies Literacies and Learning. *Berkeley Review of Education*, 4(1).
- Su, F., & Beaumont, C. (2010). Evaluating the use of a Wiki for collaborative learning. *Innovations in Education and Teaching*, 47(4), 417–431.
- Takako Mino. (2011). *History Education and Identity Formation : A Case Study of Uganda*. Claremont Mc Kenna College. Retrieved from http://scholarship.claremont.edu/cmc_theses/197
- Tarling, I., & Ng'ambi, D. (2016). Teachers pedagogical change framework: a diagnostic tool for changing teachers' uses of emerging technologies. *British Journal of Educational Technology*, 47(3), 554–572. <http://doi.org/10.1111/bjet.12454>
- Thomson, D. (1969). *The Aims of History, values of the historical attitude*. (P. Wilson, Ed.). Thames and Hudson Ltd.
- Trskan, D. (2012). City Squares- A project involving Swedish, Italian and Slovenian Upper Secondary schools- The Role of common Localities in establishing Historical Links accross Europe. *International Journal of History Teaching , Learning and Research*, 11.1, 106–120.
- Turner, D. S. (2003). Horizons Revealed : From Methodology to Method. *International Journal*, 2(1), 1–32. Retrieved from http://www.ualberta.ca/~iiqm/backissues/2_1/html/turner.html
- UNEB. (2005). *Advanced level, History Syllabus*. Kampala.
- Van den Akker. (1999). Principles and methods of developement research. In V. den Akker, R. . Branch, K. Gustafson, N. Nieveen, & T. Plomp (Eds.), *Design Approaches and Tools in Education and training* (pp. 1–14). Boston: Kliwer Academic.
- Van den Akker, J., Gravemeijer, K., Mc Kenney, S., & Nieveen, N. (Eds.). (2006). *Educational Design Research* (1st ed.). Routledge.
- van Manen, M. (2007). Phenomenology of Practice. *Phenomenology & Practice*, 1(1), 11–30. <http://doi.org/10.1007/s11097-006-9037-8>
- Vance, S. (2011). *Using Wikis to experience History*. Unversity of Illinois at Urbana.
- VanManen, R. (1990). *Researching lived experience: Human Science for an action, sensitive pedagogy* (2nd ed.). London: Althouse Press.

- Vansledright, B. (2004). "What does it mean to think historically and how do you teach it?" *Social Education*, 68(2), 230–233.
- Veletsiano, G. (2010). A definition of emerging technologies for Education. In *Emerging Technologies in Distance Education*, 3–22.
- Vesper, J. (2014). *Developing Expertise of those handling temperature -sensitive Pharmaceutical products using e-Learning*. Murdoch University.
- Vesper, J., & Herrington, J. (2011). Developing Expertise in those Handling Time and Temperature sensitive pharmaceutical products : Applying the Early phases of a Design. In *In Ed media: World Conference on Educational media & Technology* . (pp. 591–600).
- Voet, M., & Dewver, B. (2016). History teachers' conceptions of Inquiry- based learning, beliefs about the nature of History and their relation to the classroom context. *Teaching and Teacher Education*, 55, 57–67.
- Wang, F., & Hannafin, M. . (2005). Design Based Research & technology-enhanced learning environments. *Education Technology Research and Development*, 53(4), 5–23.
- Watson, B., Cooke, M., & Walker, R. (2015). Using Facebook to enhance commencing student confidence in clinical skill development: A phenomenological hermeneutic study. *Nurse Education Today*. <http://doi.org/10.1016/j.nedt.2015.07.019>
- Wolfe, S., & Alexander, R. (2008). Augmentation & Dialogic teaching: alternative pedagogies for a changing world. Retrieved December 18, 2015, from www.beyondcurrenthorizons.org.uk
- Wright, P. (2014). E-tivities from the Front line; A community of Inquiry Case Study. Analysis of Educators' Blog posts on the topic & Delivering Online learning. *Education Sciences*, 4, 172–192.
- Wright, P. (2015). Comparing E-Tivities, E-moderation and the Five stage model to the community of Inquiry model for online learning Design. *The Online Journal of Distance Education and E-Learning*, 3(2), 1.
- Yin, R. (2003). *Case study research: Design and methods*. (Volume 5). Sage Publication Ltd.
- Yin, R. (2009). *Case Study Research* (Volume 5). London: Sage Publication Ltd.
- Zin, N. ., Yue, W. ., & Jaafar, A. (2009). Digital Game-based learning (DGBL) model and development methodology for teaching history. *WSEA Transaction on Computers*, 8(2), 322–333.
- Zorko, V. (2009). Factors affecting the ways collaborate in a Wiki for English Language learning. *Journal of Educational Technology*, 25(5).

APPENDICES

Appendix A: Interview transcriptions

: Written interview reflections

: Interview transcriptions

Appendix B: Questionnaire responses

Appendix C: Observations

Appendix D: Reflective Blog entries

Appendix E: Questionnaire

Appendix F: Interview guide

Appendix G: Observational guide

Appendix H: Consent form

Appendix I: Data analysis procedure

Description

Appendix A- Interviews transcriptions: (A1-A4) present a detailed account of informal interview sentiments captured from practitioners as; history teachers, teacher educator and NCDC expert illuminated in chapter 4: (A5-A25) highlights the written interviews at the first implementation of design solution presented in chapter 6; (A26- A36) presents interview transcripts for the second implementation of design solution in chapter 7. The interview transcriptions were structured according to the students' responses to the illuminated design principles.

Appendix B- Questionnaire responses: (B1-B20) highlights transcriptions of comments from only open ended questions administered to students. Notably, the open ended questionnaire was administered to students at the second implementation of the design solution in chapter 7.

Appendix C- Observations: (C1-C8) involved students' observational comments made on the Wiki platform at the first design of implementation in chapter 6: (C9-C28) involved observational comments administered at the second implementation of design solution in chapter 7: (C29-C33) captured the third design of implementation in chapter 8.

APPENDIX A

INTERVIEW TRANSCRIPTIONS

A1 I teach my students the way I was taught because I passed. I think there is a reason why using teacher –dominated approaches in teaching history today should remain; it gives teachers the authority in the class and saves the time of responding to students’ questions which are irrelevant in most cases, students reproduce what I teach them. However with this approach, students become passive and bored during history lessons.

A2 I cannot comment about teacher’s authority because my case is different. My school encourages us to use the available computers to enhance learning in class. I personally guide my students to search the internet for images and written information about the past; also we form group discussions focusing on lessons learnt from the past and how they can help us in the present. My students enjoy learning about the past.

A3 I personally dictate to my students because they are mature and can research for themselves to beef up their understanding. However, results from course work assessments indicate that most students reproduce my notes and make thin interpretations of what I teach them; such experiences have driven me to engage students in debates, peer group presentations so as they can share different views and perspectives from their peers.

A4 The current history syllabus in Uganda and related teaching approaches are examination oriented and does not align to the needs of today’s students. This therefore creates learners who cannot solve their current problems in reflection of what happened in the past. Plans are underway to roll out the new lower secondary school social studies curriculum which emphasizes the learner- centered approaches blended with the use of available ICTs with a potential to help learners to obtain skills and actively participate in and outside the classroom confinements.

A5 I have quickly gained access to the Wiki through my mobile phone also, I have linked it to my face book account so that I am quickly notified whenever a post is made and I make a response there and then.

A6 I personally used my mobile phone to gain access to the Wiki. When I received an email, I just signed in and I was able to gain access.

A7 It was not easy for me to gain access to the Wiki learning site because of the log in encumbrances but I phoned Sarah and she directed me on where to click and I finally signed up with Wikispaces but using my personal laptop.

A8 The process of accessing the contents of Wiki involved pressing buttons back and forth, consulting from online Wiki user guides; I must admit that I have gained some computer skills in the process.

A9 I have a personal laptop, since there is wireless connection here at School of Education; it was easy for me to access the Wikispaces site

A10 I was really challenged on accessing the Wiki. I made several attempts but I failed until I send an SMS message to Paul who later took me through the access process and I finally gained access.

A11 I am suggesting that the Educator provides more direction and technical support on gaining access to the Wiki. Also create a page on the wiki where we can play around with the buttons as a way of learning how to use using the learning environment for I was really challenged.

A12 I only accessed the Wiki from the computer lab; I always go to the computer lab whenever I am free.

A13 Wikis foster history collaborations and dialogue between student-student, student- teacher and student-content.

A14 Wikis encourages in-depth history research to deeply engage with the topics under study.

A15 Lack of technical support and constant guidance from the educator. Technical issues like log in and registration were identified.

A16 Participants missed communications through emails because some didn't not constantly check their emails.

A17 Notification of the history topic to be discussed in advance so that one can carry out prior research to contribute of the discussions on the Wiki platform.

A18 Lack of computers and fluctuations in internet.

A19 Participants lack a clear understanding of why they were engaging with a wiki platform which seemed a new idea in History Education.

A20 Timing was poor because it was towards end of semester and students were busy preparing for examinations.

A21 Some participants lost interest in the Wiki platform and did not actively make postings on the platform

A22 Utilization of the computer labs at Makerere University. Targeting participants who can easily access computers/laptops

A23 Encouraging participants to obtain minimum credit and use their modems. Mobile phones could be used to supplement computers and laptops but most students have low- end phones with a small screen resolution.

A24 Engage with the wiki platforms earlier before students are busy with examinations.

A25 Arousing interest and motivation is necessary for the success of the project.

Step 1: To Access and play

A 26 I accessed the Hermwiki platform, clicked and studied the PBwiki user guide. I then decided to play around with buttons with several trials and failures until I finally uploaded my family pictures. I was overjoyed having successfully shared pictures, commented about them and received peer responses as well.

A27 At first when I logged in I failed were exactly to go and start on, but when I opened instructions and watched the Video clips I learnt and now I have no problem with using it but I must advise all the teachers and urge them to learn by doing try and fail nobody will blame you with time the skills will develop and transformation is not sudden but gradual.

A28 My attitude about learning history has changed; before my engagement with the Wiki, I found history was boring and theoretical; the continuous practical (play) trial of posting and uploading historical images like Kasubi tombs, asking peers“ questions makes the past look real and present today. I am really excited and looking forward to learning History using Wikis.

A29 I found a lot of difficulty in accessing the site. First, I did not own a personal computer so I would wait for my friends to complete their assignments and they lend me theirs. It was an easy process for me though because I did things last.

A30 Accessing the site was not hard, as soon as I received the request email from the lecturer. I used my password login details and I logged in successfully.

A31 I personally did not have any problem, as soon as I logged in, I taught myself how to use the site by using the PB user guide. I tried to listen to the video but was sometimes disrupted by internet fluctuations and the video did not play.

A32 I always logged in with my friend Nawanji, we could read posts together and think about what to post. She could first make posts and then I follow. I loved the aspect of stealing the lock from the other participants on the site.

A33 I was too much disturbed by the login. The password I was given was rejected until I went back to the lecturer and she gave me another password. The good thing is that we tried it out there and then and it was successful. I just saved it permanently so I wasn't disturbed again.

A34 I learnt to engage with the Hermwiki platform on the trial error. I would make post and then post it. Sometimes it could never be visible to all. I did not know what could cause that.

A35 I gained access using my log in details although it was first a challenge but was later successfully.

A36 I loved the Hermwiki front page when I gained access, I also played with buttons to learn more about it. I found it interesting.

Step 2: Introductions- Cultural/family History

A26 I appreciate my culture as it proves my historical heritage; I believe our original cultures should be preserved through aligning the traditional with modern cultures ushered in today by technology and modernization to avoid cultural erosion.

A27 As I historian, I felt enriched to read about other peoples' family history that enriched my knowledge scope. Also, there is a linkage to the present situation; for everything, there must be a root; it may have undergone changes but there is a big linkage with the past.

A28 I appreciate cultural history; compare my culture with others. While I find a bit fair others seem difficult for example the practice of FGM. We need to appreciate and preserve our cultures because of government and modernization.

A29 While, I love the idea of cultural heritage, I disagree with some cultures like the Sabin culture of Female Genital Mutilation; some cultures in Northern Uganda where people man and woman fight before they get married. Such cultural practices do not show any respect human rights.

A30 I shared comments focusing on different cultures, shows unity and socialization. Cultures have been documented in form of languages like the lugbara culture and local texts have been preserved. I have learnt different cultures and different ways of taking on contemporary issues. This unity can help to do away with tribal wars.

A31 I appreciate one's culture and I feel part of history and this should be preserved because there is modernization and a lot of cultures are being diluted. For example the Rubaga Hills.

A32 I shared my family history on the Herwiki, members commented and this made me feel that I am learning.

A33 I disagree with some cultures like the Sabiny culture of Female Genital Mutilation and some cultures in Northern Uganda where people, man and woman fight. The successful one gets married. Look at the culture, does it respect human rights, does it involve making personal and group choices.

A34 I do not support some cultures like the Sabiny culture of Female Genital Mutilation because its consequences are not good and the bible does not support it.

A35 I think our cultures should be preserved align the traditional cultures with the modern cultures so as to think Global and embrace Globalization.

A36 I have to accept where I come from and my culture; modern standards of living are deteriorating; while others do not value education. I appreciate the positive practices about other i cultures.

Step 3: To make shared Interpretations of history meanings

A26 I responded to other people's posts, added and edited history content because there were gaps that I had to fill in.

A27 History is interpreted in the different circumstances of the time. I consulted different resources to get an overview. I made a conclusion which may not be far from the truth. Ignorance of one's background is ignorance of who we are.

A28 To beef up my understanding on Ethnicity, I looked at the pictures and photos that had been uploaded by members on the Hermwiki, interviewed someone from the Sabiny culture, watched videos and asked questions for clarification on the Wiki platform.

A29 I asked questions and commented on other members' posts.

A30 I acquired information about other cultures; reading posts as well as making some research on the internet. I asked questions and responded to other posts.

A31 Responses and posts from other members on the Wiki platform make you learn what you do not know. Many people share opinion and you learn what you do not know.

A32 I engaged in historical dialogue by asking questions on the Wiki to improve my understanding. It is encouraging to observe that members are not ashamed to talk about their

history.

A33 African cultural practices like FGM should go on. Africans have had their cultures and Europeans have since called them, barbaric; Erosion of African culture is indirect colonialism. If a community practices male and female circumcision then it should go on with it.

A34 I asked questions, commented, inquired and requested for more clarification. I added more information, deleted and modified information. Also, I held informal conversations with peers.

A35 I interviewed 4 sabiny students and also attended the Seska Sebei (Sabiny) cultural meetings at the freedom square Makerere University; I wanted to align what is documented in books and what the Sabinys have to say.

A36 History learning has to be open ended and continuous, one can comment, subtract and edit using a Wiki i.e. people can be corrected.

Step 4- Preconceptions about HisEd.

A26 Current teaching of history in Ugandan secondary schools is examination orientated which gives teachers no option to research and discussions. Teaching is directed towards the content/ teacher-centered and learners' interests are ignored.

A27 Teaching history is syllabus orientated; students „minds are focused towards passing Examinations. Therefore, It is a matter of passing but not to master and practice it.

A29 History teaching is teacher centered because teachers are looked at as the fountain of knowledge and not facilitators. Learners' interests are not catered for. It must be practical and not theoretical.

A30 History teaching in Uganda's secondary schools is examination orientated; most teachers do not carry out research to widen their knowledge scope and update their classroom notes. It is not surprising that some teachers still use the notes that their teachers gave them while they were still students.

A31 Teaching history is very boring. Teachers do not tell stories about the past.

A32 Teaching should deviate from the classroom to capture suitable teaching methods like Role play and field trips. The world is changing today and teaching should capture learner needs.

A33 History is looked as the past and its never related to the present situation. There is no linkage between the past and the students' current life.

A34 History teaching depends on how well a teacher speaks and dramatizes. For example, the stories I heard from my history teacher in P.2 are still vivid in my mind. He dramatized it, made it cunning, interesting and interesting. My grandmother tells me stories of the past as well.

A35 Learners find history as a boring and theoretical subject because learning is confined to the classroom and viewed as factual with no interpretation and relation to practical examples. Teachers should encourage visual representation of the past by initiating ICTs to form imaginations of historical pictures, videos and images that would link the past to the present.

A36 History has been criticized in our country; students are job seekers instead of creating jobs.

Step 5: To support open questioning & clarifications

A26 I consulted many historical resources: looked at how they relate to each other and I came up with my own views.

A27 I acquired information about other cultures; reading posts as well as making some research on the internet. I asked questions and responded to other posts.

A28 I have learnt and come to know more about more about history; we need to get information from different resources.

A29 I consulted many historical resources, look at how I consulted from elders about what I thought; responded to other peoples' questions and edited people's posts. Also, I used resources and historical articles from the internet.

A30 I consulted from a number of resources; read history books, watched television programmes you feel things are real. Using several sources brings about confidence.

A31 I consulted documentary resources from key authors like Karugire, held oral interviews with elders about the origin of tribes; listened and watched video clips of Lugbara people.

A32 At first, I did not know Ethnicity but I have understood the practice of Female Genital Mutilation on video clips, newspaper narratives, journal articles, interviews and borrowed books from the head.

A33 Having multiple sources makes me compare different information from different sources weigh them and find out whether they are similar this helps me to set goals for future.

A34 I read historical books, social media, student posts and comments, newspapers, journals

A35 I responded to other peoples' posts, made clarifications and edited posts.

A36 Blank.

Step 6: To support reflections and framing history

A26 I would have shared lots of videos and images about the Sabiny and Buganda cultures but I failed on several log in attempts. Also, I was constrained by internet fluctuations that slowed down my progress.

A27 My knowledge about Ethnicity was broadened, when you engage with Wiki platform you engage with the Wiki platform you have to think, read and research for information that has not yet been posted.

A28 During my school days, I was taught Ethnicity but it was abstract but the Wikis engage pictures, videos, texts, use of personal examples which makes learning more exciting.

A29 Through my engagement with learning history on the Wiki platform; I have realized the importance of the visual representation of the past through watching videos on what actually happened.

A30 My knowledge about Ethnicity was widened as I was able to read posts on the Wiki and internet.

A31 To enhance my knowledge on Ethnicity; I watched video clips, used pictures from the internet; asked questions on the Wiki.

A32 I really understood Ethnicity as practically meaning the different cultures, social life of that I watched in the video clip.

A33 I appreciate the idea of using Wikis in learning history emphasizes group learning while assessing each other; I have been able to read my fellow peers' work, commented, criticized and obtained instant feedback. It makes history open ended and continuous.

A34 I learnt the Ethnical understanding is important in history because it helps us to preserve and communicate our cultures and we get to know our languages better.

A35 People should always be proud of their history regardless of where they come from. I personally come from the lost counties in Buganda but I tell people that I am a Munyoro with a Kiganda name. I am really proud of my culture.

A36 History is boring; theoretical but teachers should modify and change the way they teach . They need to be trained to use ICT resources.

APPENDIX B

QUESTIONNAIRE RESPONSES

Q) 1V

B1 Face book, twitter and whatsapp are mainly platforms where I get in touch with friends, upload my photos and post information for friends to communicate with me.

B2 Sometimes I use face book for relaxing my mind and communicating to friends; other times we talk about the past reflecting on what happened in the past and happening today. Also, I sometimes communicate with my friends sharing and discussing some ideas either cultural or academic.

B3 I communicate with friends using face book and whatsapp, twitter, I am just learning its operations

B4 I engaged with the above social networks by chatting with friends, finding new friends for example for example on face book and also for academic issues like LinkedIn.

B5 Twitter is exclusively a platform that I use to follow pages and people and pages that interest me. For example, I follow MASA.

B6 I use the social networks for communicating with my friends we have shared too much about our lives and families on face book

B7 I use face book and twitter to get news updates from locally from televisions like NTV and globally for BBC news where I get updated about the current situation.

B8 I use the networks for interacting with people globally around the world; chatting with friends and knowing about their personal lives.

B9 I use face book in many ways but the most important ones are two; in most cases; I exchange educational information with my friends, course work about history and how we can improve history teaching in secondary school to make it more simple and practical. Secondly, I

use face book to associate with different kinds of people both inside and outside Uganda; this has greatly improved my way of communication and my relationship with friends.

B10 My friend opened up a group and I joined it; we discussed about different meanings about history on our face book page.

B11 I use face book for academic purposes and interaction with friends.

B12 I use face book every day, I stay logged in just to get in touch with the study platforms like Comparative Education, ESASDEI, and connect with friends for daily talk. I equally use whatsapp daily, to get instant notifications and also use it for study and conversations with friends.

B13 My friends who had been on face book before I also joined invited me to join face book. After I read the message I opened the account of face book by logging using my full names and telephone number.

B14 LinkedIn is a platform I joined to get information about jobs and contacts but I haven't explored it.

B15 I use face book as one of the social media. Basically I always use both Academic information and interaction; looking for new friends and old ones.

B16 I engaged with the social networking class in history by sharing with fellow students; historical meanings and understanding some concepts like Ethnicity among others.

B17 I engaged with face book through the computer by logging in the email account and the personal details

B18 I went to the Café and asked for help. Having been signed in; I invited my friends.

B1 I use face book and twitter to follow up on people's works and life.

B20 Blank space

Q4)

B1 What interested me was about marriage though it phased out. When a man was interested in a particular girl/lady and you wanted to marry her, you did not have to tell her or her parents. One just brought cows very early before sunrise when the parents are still in bed tie the cows in the compound and leave a note with the name of the girl that you wanted to marry. If parents accept the cows; any time you want you can take the lady.

B2 Interestingly, in my cultural history up to date, when a woman produces twins. She becomes a great woman in our culture, the bride price is added. We don't have the FGM practice as virginity is not mandated.

B3 My family after losing both parents as early as 1985 and 1987 has lived under abject poverty but through commitment to religion and hard work hope was restored.

B4 My name is XXX, I belong to the engabi clan and particularly I am a muganda man. My mother is called XXX and she also belongs to the engeye clan. Therefore, all people who belong to the engeye clan I take them as my uncles and mummies. Therefore, it is a taboo according to my culture to marry a person that belongs to the engeye clan neither my own clan engabi.

B5 In my family/cultural history, we are baganda family people and we fall under the ndiga clan. We celebrate a lot when any family member gives birth to a son or child because that means that our clan is enlarging. At home, we get so much excited when it comes to introduction ceremonies because we have got a lot of girls thus bride wealth increment in the family.

B6 In our culture that is the Banyankore, the interesting thing is that we cherish cattle keeping other than other animals like people hate pigs that make them unique from other tribes like Bakiga.

B7 In my culture (Buganda) when children (boys and girls) reach the age of 12 years the girls in particular are taken to their aunties to learn different things, perform different tasks and are taught cultural values and norms and then boys are taken to their uncles to also learn what they are supposed to.

B8 When a man/father in the family dies, we mourn for 3 days unlike a woman who is given only one day of mourning.

B9 All most all things in my cultural history are very interesting but the most important one is the Batooro. They have pet names which portray respect when one is called for example; Amooti, Akaali and Akiiki.

B10 The way people in our culture love our king. Whenever you talk about the Kabaka of Buganda people take him with high value.

B11 My cultural history dates back as far as 900 years.

B12 Back in the time, parents were the only people to decide who the son or daughter was to marry. The child could have a person in mind but the parents had a final decision.

B13 Initiation ceremonies especially for the young youth are usually made during November and December per a year.

B14 I have just realized that cultures have specific values and I really cherish my culture. For example, we visit the bush and we do what they call pulling of the labia"s. For the Sabiny, they remove them totally.

B15 In the Acholi cultural history; a man is not supposed to greet or come in contact with his mother in law. They also practice incarnation to the dead; polygamous marriages are encourages and inheritance of widows is a practice.

B16 Something so amazing is the music and traditional dances in my culture. For example; during celebrations upon winning a battle my people celebrate and girls together with boys dance in front of elders.

B17 The interesting thing about my cultural history is that for a long time its known as a hospitable culture for everyone.

B18 I was born in Kibaale district, a former „colony“ of Buganda. When I get there I am referred to as a munyoro, but when I go to Buganda, people want to call me a muganda because of my name, when I go to Hoima; people do not believe I am a Munyoro.

B19 In my culture, girls were usually put in the shadow of their men. Men always took the first priority in all avenues. It is funny how women were prohibited to eat chicken but men allowed and only to discover that men were greedy.

B20 I cherish and uphold my traditional cultural values from Ankole. Since we are highly cultured we are respected as women.

Q5)

B1 It's interesting to me because it shows the transition that human beings and society have undergone to the present, removing some barbaric practices and replacing with generally accepted norms.

B2 It is significant because I feel part of a history when I describe, appreciate and write about my culture, it is a way of preserving it as well as exposing my cultural history to my friends. It's interesting because it is in historical form and shows that history is interesting when it comes to time.

B3 To encourage people especially children who are orphans to have hope and commit themselves to God and work hard to make a positive difference in life other than degenerate into misery and vulnerability.

B4 Sharing above information is significant because it shows the sense of belonging; it identifies me with other people and it also summarizes my cultural values that any muganda should not marry a person of the same clan or that of his mother.

B5 It is interesting because it leads someone reading or hearing to know and learn what could be taking place in other peoples' lives and then compare if necessary.

B6 It helps the young generation in knowing the value and values of the culture. Helps in tracing our origin. It makes the young generation respect elders.

B7 This enables other people from other cultures to get to know what takes place here and during what time such that they are not confused with others. It also gives me a chance to boost around and praise my culture because it is the only chance that I have to show it up to everyone.

B8 It enables others to know more about my family/cultural history.

B9 When one shares his/her family history, it enables him to appreciate his culture and learn how other cultures conduct their things. This promotes love and confidence more so it removes misconceptions people have about other cultures. For example, one may know that certain cultures they at human beings but when one comes out confidently and shares his cultures such misconceptions are corrected.

B10 I do think it is important to give courage to other people to respect their kings with a lot of love as it's done in Buganda.

B11 Blank....

B12 The Samia culture by then did not believe in courtship just like most African cultures; marriage was sacred and it was a community concern to ensure each member of the clan gets married. The wife belonged to the clan.

B13 It teaches me about the cultural norms and procedures of societal behaviors and existence.

B14 It is significant because it keeps others informed about the different values of society and come up to appreciate cultural values and so respect in that case for values.

B15 It makes others aware of my culture. At times one can also copy and apply it were necessary. Comparing it with other cultures and see how they are related.

B16 I think it is important because it is so vital to the study of the historical cultures of Societies in Uganda. For example, my culture from Lugbara would enhance a transformation of some societies getting to know them. Secondly, knowing other peoples' cultures and helping them with the social interactions and social networking. Hence, I have appreciated the cultural heritage.

B17 The reason for sharing my family history is to encourage cultural integration and socialization.

B18 It helps me to discover the irony of my origins and then identify with people in the same category as myself.

B19 It is very interesting how people outside my culture/family history look upon our values. Some consider it primitive and as for us, we are just proud to be who we are.

B20 Blank....

Q6)

B1 The culture of the Mahdi people in West Nile. About marriage and bride wealth. If a man takes someone's daughter before paying the bride price, every child she produces is equivalent to one cow. In addition to the initial bride price you were meant to pay. So as one accumulates children, the more they have to pay the woman's family.

B2 Taking from the Sabiny, they have good socio-political and economic strategies, but FGM is a problem to the community (ies); it makes life hard for the youth. They don't have a king but they organize the community that is why it is not easy for the government to stop FGM. Without FGM, a woman can't marry because this process makes her ready for adulthood.

B3 Blank

B4 Cultural history interests me a lot because it is kind of unique from other cultural history shared on the Hermwiki platform.

B5 The videos, photos among others shared on the Hermwiki have made me feel like I was/ I am there by that time because I watched and saw what was actually taking place in the videos.

B6 The „Kadodi“ dance among the Bagishu is one of the interesting things that was shared on the Hermwiki platform.

B7 Among the Tutsi in Rwanda, every child is taught how to make bushera as a soft drink for them (okushigisha) at the age of seven (7). That is really cool!!

B8 Blank

B9 Surely, it is interesting to see that among the Sebei; Female Genital Mutilation or female circumcision is still prominent in that region.

B10 I found it interesting with the way the people accept and a younger person seats as a king and elder people bow down for him. For example, the omukama of Toro though he has grown old now.

B11 What is interesting are the differences in cultural histories between each participant on the Wiki platform. These all unite in diversity of one nation.

B12 There is something interesting about my peers' sharing of the Toro culture; especially the way women dress culturally. It also signifies the social or moral upbringing of women and girls.

B13 The members of the Hermwiki have actually presented their ideas and contributions about their individual cultures.

B14 Of course, I cannot mention the name of that individual, but I could not believe that she could construct rich history and this has taught me that all can if given opportunity.

B15 The Sebei culture has been very interesting to me; more especially the cultural practices of FGM shared in the videos and images on the Hermwiki . The practice seems to be vital and taken on as a traditional culture. While I respect the culture but I think it is not right medically

B16 Looking at the different cultures shared on the Wiki learning platform. People should appreciate and unite in diversity to solve the problem of cultural groups clashing and tribal wars.

B17 It is the hard work and the women circumcision of the Sabiny ethnic group in Uganda.

B18 My friend XXX is Munyoro whose name always sounds as a coincidence. It is really ironical for her to hold such a name in that region.

B19 It is funny and very much surprising and again interesting that I used to look down upon the Sabiny culture and people but the way she expressed her gratitude, I was so moved and realized that whether we agree with what other cultures do or not we have to respect them.

B20 I personally found the FGM cultural practice very unique and very vital in preventing promiscuity among the Sabiny women. I also know that it is a violation of their human right but its cultures should be preserved.

Q7B

B1 I agree because at least I am sure someone interested will read and get to know something about my culture and for the case of teachers; it will be a reference point. I also agree because to those tribe mates who never get chance to be taught/told about it will get to know how our grandparents lived.

B2 Because it is a kind of appreciating my culture and trying to bring what happened longtime ago. It means I am constructing history out of my culture so I feel part of history.

B3 Blank

B4 Yes, I strongly agree, because according to the information shared on the Wiki, I found out that my culture is the best and superb. Therefore, I feel I am part of history belonging to the best cultural institution in Buganda.

B5 Because I got a chance to look for the differences and similarities among the cultural practices shared on the Wiki platform. I also, realized that, what we follow in our cultures or family is history. Therefore, history is day to day life that we are living in.

B6 I strongly agree in that, it is through the Hermwiki platform that other members come to know more about my culture and they cherish and respect my cultural values. Therefore, through reading and commenting on other peoples' cultural backgrounds. I gained the values and respect for other cultures.

B7 People get to know how practices are done, at what point in time such they do not misunderstand anything.

B8 Blank

B9 True, I have appreciated my cultural heritage. I feel part of history because now I have come to know the „unknown“ of other people and in a way I have compared my cultural history to others and in most cases I find that some things need to be scrapped off.

B10 People/participants in the Hermwiki platform have noticed how the Kabaka is treated with love and respect especially in Buganda kingdom.

B11 It's through the platform that discussions have freely surfaced and has provided learning moments.

B 12 Sharing about my cultural history, especially concerning marriage has made me feel confident in sharing historical facts and my culture, about something which used to happen in our marriage culture.

B13 I agree because not all the traditional cultures still exist in my home area due to urban life influence and globalization.

B14 Members have shared with us values of their societies, with continuous questions and responses from each other; I feel obliged to participate in writing about my family history.

B15 Others also learn about cultures and they also appreciate or criticize; informally –cultural heritage is part of education.

B16 I have had a chance to explore and discover my culture and appreciate it compared to other Wiki groups in history. Therefore, I appreciated my ethnic background also compared with other ethnic groups like Baganda and others.

B17 Blank

B18 Opening up my true identity made me feel like the whole world had got to know that I am a munyoro and not a muganda.

B19 I strongly agree because as I was sharing with them, they also shared with me and where I felt that my culture was lacking, my spirits were lifted, I realized that I had to learn to appreciate my culture at the same time respecting other cultures.

B20 I appreciate my family and my culture so much, our cultural practices are very meaningful and there is a reason to explain why everything is like that in my culture.

Q9

B1 The text books in electronic format had readily and updated information images and video clips attached therefore displaying the whole information as needed it. The museum had the historical artifacts and some materials that were used by the people and therefore gave me the real picture.

B2 I used the selected sources above, because they had given all the information about different beliefs and practices from different tribes, describing socio-economic and political organization of Baganda and Sebei and drawing what was in the past but it is not there, yet are interesting.

B3 They were the most convenient and available to me.

B4 I used many sources but let me focus on the open web sources. These sources like Wikipedia are very easy and readily available and offer relevant information about any subject.

B5 Because I wanted to relate what others have posted so, I had to read other members' posts in that I compare it with that I got from textbooks in that I think critically before I could come up with my comments.

B6 It was cheap to access and the place was full of different cultures and their values well explained.

B7 Text books in electronic format clarified information which is understandable to everyone.

B8 Firstly, I would tell a story for instance about the Bantu and how they migrated in to East Africa. Secondly, I would also use a case study of for instance the Nilotics so as to enable my students understand the social, political and economic set up of various tribes.

B9 This has paved way for me to use Internet since now history of other cultures has been shared on the Wiki platform. Watched video clips, posts and other information since it is very easy to use that page than any other pages.

B10 The posts of other members specified it very clearly to me and the book I read was enough to make understand Ethnicity in Uganda.

B11 Blank

B12 The information which was provided by other members on Ethnicity in Uganda was well detailed, with adequate examples and illustrations which gave me more information on Ethnicity.

B13 I visited the National Uganda Museum in 2013 and because I explored several tools, equipment, materials of traditional origins of different people or tribes in Uganda and surely identified instruments of using any each of them e.g. the drums, spears used by both the Baganda people for performing traditional dances. I can never forget what I saw in the Museum.

B14 From what members had written I was intrigued to know more about Ethnicity and so I went for textbooks in electronic format and approaches to understanding Ethnicity helped me a lot.

B15 More information is got both the current and the previous. Textbooks give information which is well researched. Reliable information is also obtained as members' posts are more interactive on the Wiki.

B16 I choose to visit some elders because they were cheaper to consult. I chose the story teller because their source was oral and they had to tell me the facts from experience in Uganda. For example, retired government officials from parliament in Uganda.

B17 The reason is because it was easily accessible compared to other sources.

B18 I had the opportunity to tour with my history class to the Karueiika palace in Bunyoro in Hoima coincidentally the posts on the images page indicated what I saw there.

B19 I needed to get information from individuals with a view that wasn't necessarily biased. All the history books that I read and still read, I can clearly see though exaggerations and myths said about my culture and I have had an opportunity to explore other cultures' history.

Q11)

B1 I got to realize facts that I had not for long period attention to. When developing the video, we interviewed a gentleman and this widened my scope of understanding of the Ethnicity in Uganda.

B2 Videos I saw able to observe FGM live practically. Responding using questions, I obtained all historical both social, economic and political organization of Baganda and Sebei and their practices.

B3 It gave some information regarding ethnicity which can act as a stepping stone to further research.

B4 By commenting on other people's posts I was able to understand the cultural aspects of majorly the Sebei people and now I am familiar with the Sabiny culture, not as before interacting with the Hermwiki programme.

B5 They improved my understanding of Ethnicity in Uganda through coming to know that the Sebei people do circumcision to both sexes and to the extent that, the women lose their sexual desires through that exercise thus denying their right to sex.

B6 Uploading pictures helped in improving an understanding Ethnicity in a way that I came to realize different cultural activities in different ethnic groups like the Bagishu remain my outstanding examples.

B7 Gave me a chance to know other people's views and all their thoughts were explored without hesitation.

B8 It made me aware about the various characters of some ethnic groups of which I had less information.

B9 When you engage in a conversation my argument with other people on Wiki this improved my understanding of Ethnicity in such a way that I received immediate response from the members and I recognized that Ethnicity in Uganda differs from tribe to tribe and societies.

B10 The more points members gave/commented on Ethnicity cleared my view of the Ethnicity in Uganda.

B11 Blank

B12 Taking an example of Sebei culture, where they practice female genital mutilation , some societies still treasure the practice despite the campaign against the practice, as they can afford to outside their societies and come back after the mutilation process is over.

B13 Through the understanding of traditional instruments used by different tribes" e.g. Drums, guitars, calabashes among other were displayed in the website.

B14 It makes history a practical discipline with hands on in researching for historic facts driving away boredom. For the case of Female Genital Mutilation among the Sabiny, I found out that such a value is more harm than good.

B15 Responded to another member"s question give access to clarification and critiques. By conversation, exchange of knowledge is availed. By commenting it gives access to conversations to continue.

B16 I got to learn from other members" feedback so crucial to me. For example, through interacting on the Wiki and sharing history of others. This made me to discover the different aspects of Ethnicity for example language, culture having had this experience; hence I have understood Ethnicity better.

B17 Ethnicity in Uganda is a broad concept but conclusive when one analyses it, we are one since when you start checking for originality of a given tribe, currently there is no pure tribe.

B18 When I posted on the images and members asked me to clarify, I was forced to think deeply about what I had seen, thereby understanding history better.

B19 Initially my judgment about Ethnicity was biased and prejudiced, all that changed for the better through the Wiki platform.

Q13)

B1 Reading online literature tasked me to think hard so as to conclusively agree on some facts. Analysis of the different information portrayed to come up with stipulated history about a particular society with information literacy skills.

B2 Historically, I was describing cultural history of ethnicity in Uganda. I had gained experience of typing since history is advancing as technology. Problem solving when tasks are given to research about Ethnicity in Uganda able to obtain the above skills to complete that task.

B3 I revised class notes and made practices on Herwiki. Analytical skills were exercised by most members of Wiki on the page from which I benefited.

B4 I obtained first the critical thinking through reading the posts and I became inquisitive and this forced me to shoot a video on the Sebei Ethnicity which will be featured soon. During the video shooting interacted with a number of people while developing team spirit and skills.

B5 I obtained the above mentioned skills through reading other people's posts, text books, consulting educators, cooperating with others and among others. At the end I tried to analyze and come up with my own views on the platform.

B6 I consulted other members I knew and later the ones in Upper and lower classes like those in 3rd year.

B7 Team building skills were obtained because the co-ordinator could tell me to talk to other people such that they can post something on the platform.

B8 I obtained the above skills through actively and willingly engaging in group discussions and having hands-on engagement with the computer.

B9 Team building skills these I have acquired them through associating with different people of different backgrounds on the Wiki platform and in such a way working together is important.

B10 I read others comments, posts and I critically thought of it and commented too. Team work as we worked together with other members and every one gave out his/her view and brought out a meaningful post.

B11 By learning to work together thereby each member provided an input on the activity.

B12 From Ethnicity in Uganda, members on the Wiki engaged in arguments which created critical thinking about the practices of various societies. This further endowed me with information literacy from various societies.

B13 By logging into my google account, I was able to check my inbox and clicked on it and it showed me the message of Hermwiki posts which I then commented and posted easily.

B14 Reading, comprehending members' comments and critiquing some after critical thinking (historically). From the posted questions, I responded to some and I am sure problems were solved. The platform required a lot of typing, reading, analyzing and reflecting on the past so it was a must achieve I mean the skills.

B15 After reading someone's post or comment I always take time to respond/comment. By reading their views and commenting one gets information/knowledge. I always type the comments myself and I send.

B16 I acquired the skills through thinking deeply. For example, one could post and ask me the meaning of Ethnicity and I could explain to them. Hence, I obtained this skill of explaining historical concepts to the Wiki class.

B17 All the ethnic groups in my country are established where they are after migrating from a given point hence I came to conclude that we are one but what differentiates us are just social constructions.

B18 When I shared on the images page, I felt I was part of the team, because many questions were asked and I answered back.

B19 If you realistically looked through the various posts by the different members; you realize that your thinking capacity is highly elevated and gives you a wider understanding and analysis of the different cultures.

Q15)

B1 Lecture method would be appropriate in a case where am well versed with the culture and want the learners to get the culture. Inquiry, project and case study as methods widen the knowledge learners have and also give the real view of what is being taught.

B2 Drama would also be used to describe different activities done by different tribes in Uganda.

B3 They are more thinking and relatively cheaper to make use of. They foster individual participation and enhance effective teaching and learning process.

B4 History is alive subject which is interesting content one well organized, so organizing a group discussion, role play or case study can blow the teaches attention and get interested in learning history.

B5 I would use them because lecture method helps me to do a lot of research in that I just give data to the students. With group discussion, I posse a question and I let them to discuss it. For example how Ethnicity done in Buganda then come up with answers. And with discovery method, if it comes to have a case study on Buganda kingdom can help me to relate it to Ethnicity.

B6 By taking learners to the field; for example in the museum, they will be able to comprehend and synthesize more pertaining up different ethnic groups and what they cherish.

B7 It would enable students to understand the concept more clearly. It would give the learners a chance to explore more than expected.

B8 Firstly, I would tell a story for instance about the Bantu and how they migrated into East Africa. Secondly, I would also use case study for instance the Nilotic so as to enable my students understand the social, political and economic setup of various tribes.

B9 With group discussion you will get all the information about Ethnicity that you need since you will be having different people with relevant explanations.

B10 Telling students to discuss about each ethnic group will help them understand more. Visiting the historical sites too makes students to get the term Ethnicity clearly. Role play/drama also students involve themselves and help them to understand Ethnicity very fast.

B11 Blank

B12 Group discussions play a great role in the understanding of Ethnicity because it gives room for criticism and allows giving their new points and also inquiry methods, helps to get direct views or information from students of that particular society.

B13 This method helps to expose students or teachers to acquire self-reading skills, interpretational and analytical skills of getting historical information of a given group of people in the country. A case study helps students study individual parts of an organization in a larger or broader concept of its narrowed down to a specific group representing the majority group.

B14 In order to bring reality closer to learners. With project-field visits there will be high retention of knowledge. Story telling/lecture method will help to put forward the main points since it is now teacher as main source of facts. With case study, with 1 or 2 learners can generalize on some points making learning faster. Group discussions and inquiry methods encourage active participation and high order thinking skills (thinking historically).

B15 A good history teacher must be a good story teller. Group discussions are at times children-centered which widen the learners' mind and understanding. By applying role play, learners learn problem solving technique/skills.

B16 The story/lecture is so crucial because of it helps explain clear concepts. For example, you can't tell lies. I would use the story/ lecture because facts would be revealed to students and keeps learners attentive in the class.

B17 All the above methods are easy to depict the reality of the past. They also good methods because learners engage in groups and share their different cultural history.

B18 The lecture helps learners to get a lot of information from the teacher. Project –field study helps learners to remember a concept for life, and role play enables learners to feel part of history.

B19 I would use the above methods because I strongly believe that history has a practical bit that should be recognized and appreciated and in so doing, fully involving the class in the history teaching is very much paramount.

17a)

B1 I learnt to use the platform to enhance learning In the process of interaction, I discovered too much new information that I didn't know.

B2 It has improved because videos depicted the past even or even described what happened and is happening today esp. pictures. I discovered different instruments that were used in many communities and their purposes then. However, today they are not in use.

B3 I came to appreciate the fact that, history knowledge is relative and that it is not static.

B4 I learnt how to upload images on the Wiki platform because I uploaded some classroom photos.

B5 It was improved through having fun with technology usage. Through attaining the skill of thinking historically before I give answers.

B6 I was able to introduce myself , my tribe , my district , my parents , my University , my teaching profession, my year and teaching subjects . I also talked about my cultural values this also applied to other members and I came to know what they cherish.

B7 It was improved because members commented back on my comment and corrected me where I had gone wrong.

B8 Blank

B9 When watched a video clip about female Genital Mutilation I got to know how those people practice that and which part exactly the cut and another hard it's a bad practice.

B10 I improved as I learnt to use internet to search for work, pictures , down load some pictures and posting them.

B11 Blank

B12 Each section had something new to provide, introductions alone provided different views on different cultures. Different pictures had detailed information of culture that I got to know.

B13 This method helps to expose students or teachers to acquire self-reading skills , interpretational and analytical skills of getting historical information of given group of people in the country or region.

B14 I am knowledgeable about the Female Genital Mutilation a value among the Sabiny plus the values and the reasons for conducting the practice.

B15 By viewing video clips and pictures my understanding was sharpened these bring about the reality world.

B16 I got a chance to learn about the meaning of Ethnicity in Uganda. For example, what Ethnicity means. I got to learn some Ethnic groups like Lugbara, Baganda among others. This is because I joined the Hermwiki platform.

B17 My knowledge on the methods of history instruction improved from the conventional methods of teaching.

B18 I read comments from other members which helped me to understand concepts about other people's societies.

B19 I learnt to have an objective view about the different versions of cultures rather than a biased and prejudiced one.

17b)

B1 Blank

B2 People should have enough information about historical events, for someone to construct history and interpret. Historical sites needed be visited to improve history knowledge.

B3 There is need for wide reading to consult various sources before making any post. There is need to train members on the usage of Hermwiki to avoid mispostings.

B4 Making the platform a bit faster and make it very accessible to handsets like mobile phones.

B5 Fund provision from the supporters and motivational usages.

B6 Through uploading videos of different tribes with what they value.

B7 Informing more interested people about the platform will help a lot as there are many who would be interested but not disseminated.

B8 Create or provide a „guest access“ option so as to enable everyone from anywhere around the globe interact with the platform but limiting the editing options to approved users only.

B9 Blank

B10 By encouraging everyone to read/ search about history meanings and post their views so that they can be seen.

B11 By posting of inquisitive and provocative statements that require critical thinking and informed discussions.

B12 On this platform of Hermwiki if members can make use of examples in the information about historical facts they give this will be a credit to the interpretation of history meanings.

B13 Deliberate on time specific topics to be shared among members. Continued use of the Hermwiki website to access the relevant information either posted or commented by different people in order to generate personal ideas and conclusions.

B14 If it can be shared like other social media such as facebook, twitter, I am sure many historians outside the group will like it.

B15 Learners should be orientated/ introduced to the system. Visiting of historical sites in order to construct meaningful history and depicts.

B16 Available resources like computers should be increased for students. Train personnel to teach history students on how to use Wikis for expertise.

B17 Through the encouragement of the orientation programs to the Hermwiki platform for participation.

B18 Edited texts about concepts should be uploaded such that we can comment basing on them.

B19 I think history meanings vary from culture to culture, that should be highlighted or emphasized.

Qn 18b)

B1 I strongly agree because first of all by people contributing about their societies, much is learnt. Learners also use the platform to ask the educators and by being answered more is learnt. 21st century students tend to like associating with technologies thus Hermwiki stands at a position making it one of the best methods of teaching history.

B2 Because it washes away doubt about history education, and equips one with past and current occurrences by comparing after reading posts, commenting and sharing. They realize that history is a science of life without history you cannot proceed to the next level.

B3 I agree because the statement holds some truth through the quality of these comments, postings and their accessibility to history learners remains another thing.

B4 It integrates the learning of history with IT skills. Thus, we teach while learning. This is through learning the history body of knowledge while at the same time developing the IT skills.

B5 I agree because this shows that people on the platform are active and moving together.

B6 An example of uploading photos which have no explanation, people will not understand what they are all about but currently the photos and documents uploaded contain more meaning of different cultures.

B7 Commenting on posts alone cannot 100% develop a personal intellectual abilities, but one needs to post his/her own such that he/she feels part of the pearl.

B8 It is because I am not sure about the source of that information and also those who comment may have limited information as regards to a particular topic.

B9 Yes when comments are made and other posts such posts and comments are accessed by many people and in so doing information is spread from one person to another through the Wiki platform.

B10 Students when actively involved in the activity they learn more and faster other than reading the books written by different people and answer questions.

B11 Blank

B12 The posts made on the Hermwiki platform on history are always made after strong observation and also comments made provide an analytical discussion on historical information.

B13 Because of the availability of resources and materials like computers, educators, lecturers and the western influence of digitalization, people collect information of any point and will be uploaded or put on the network regardless of time area or place which makes us to learn at any convenient movement.

B14 Of course with the digital migration, platform and history in general becomes so relevant because it is another way of catching up with the digital age.

B15 History is open ended, it should not be restricted because it's part of peoples' life and no one can live without his in order to have a clear goal. Shaping of history subject –correction and subtraction and additions are allowed in history and are relevant.

B16 It's important because history should become practical other than theoretical in that it should be brought to reality to solve certain problems in society. For example, understanding the tribal and ethnic fights in society so, comments and postings are made on the Wiki which can make possible suggestions to the problems of Ethnicity in Uganda.

B17 It's because through the comments and posts that are done with computers, it encourages learners to explore and move beyond their knowledge.

B18 Commenting and making posts is fun, for participants, it provokes critical thinking.

B19 Active construction of history proves that history is much of a living subject.

Q 19b)

B1 Through people's posts and contributions and submissions about their culture in the past and how society is behaving now, I can easily predict how tomorrow may appear and the changes in cultural norms.

B2 Because when I observed what happened in the past and brought some problems and it seem to happen to that would repeat the same in the future, I need to play a present method using the past history e.g WW11 we realized not threatening other country and the dictatorial nature has led to this then we need to prevent any dictatorial tendency in the world.

B3 I loved the presentations of other Hermwiki members showing the wealth of cultural heritage from Buganda and Sebei cultures. It made me reflect more about my on Iteso culture which is seemingly being corrupted by modernization. As a teacher I shall have to do something to rejuvenate cultural practices –music, dance and drama in the school I shall teach.

B4 Ethnicity information posted on the Wiki with its paradigms gives a view that culture and ethnicity are trending, the way things happen in the past has changed and expect them to change even in future.

B5 Strongly agree because a lot that I have learnt. I have been able to know some history about the Sebei and try to get some relevance and relate to the present life.

B6 History meanings of the past and the present have increased respect for elders from the young generation and this will remain the source of respect and right upbringing of young generation. For example, among the Banyankore cattle keeping has still remained the song of the day and still the incoming generation will cherish that.

B7 One starts thinking analytically and critically about aspects and broadens them.

B8 We learn many lessons from one person and these lessons have greatly influenced our present and future to come.

B9 Comparing the practices that cultures used to perform, most of them today are being performed for they have adopted modern ways of life and culture needs to be preserved and not everything in culture is bad. Therefore, situations prove that, in future the world will go modern and most of them will no longer be relevant due to intermarriages.

B10 I have seen different changes taking an example of the sebei ladies and girls that were circumcised. Through all the pain they went through and the disadvantages their future has stopped it to the younger generation and they live in peace now days.

B11 Blank

B12 The information on History provided, especially Ethnicity in Uganda, provides clear information of the past like about the culture of the Sebei and learning about their practices, I come to learn of the future of the Sebei cultural practice. It simply has no way forward as the practice is dying out.

B13 Initially, I could not manage to manipulate the computers because they were limited, network was a problem and human resource was also limited. But today, it has changed were by at least a person can access computers and learn unlike in the past. This simply means that in time to come if possible ; lecturers, lessons and other modes of learning will be digitalized by use of computers at advance to their peaks of high technological growth and development.

B14 Because it has made me appreciate the relevance of our history and my attitude has now changed. If you do not know your past, therefore you will never predict where you are going.

B15 Blank

B16 It's relevant because, once past issues like ethnic differences and rights and then related to them to the present and future like uniting them. For example, if the Lugbara and Baganda were fighting long ago. Today, they are told that they belong to the same ancestry which will predict peace to come in the future between the Lugbara and Baganda.

B17 From the content posted on the Hermwiki platform, the various occurrences of today such as tribalism have been illustrated that began many years before and has equipped me with the knowledge of dealing with the various tribes hence projections of the future.

B18 On the images platform, someone explained his culture and I was able to understand why they behave so in that culture.

B19 Like someone remarked, the end justifies the means and then, history repeats itself „It’s a question of analyzing the patterns or trend of events that I can now make clear projections of the future.

Q20b)

B1 According to other members’ posts , I compared that in relation to what I was taught at the secondary school.

B2 When I look at the Lower Secondary Social Studies Curriculum Reforms, it is going to present to the learners what is relevant to their experience in their environment that is Africa events that happened in with in rather than outside. When I see the past teaching is different from the current teaching which means history is transforming in to technological advancement.

B3 Blank

B4 Through continuous consultation and reading of different history sources; also reading posts on the Hermwiki platform.

B5 Through the above choice, I achieved it by knowing that whenever a good teacher teaches, he or she has to reflect to establish weaknesses and strength and work upon them effectively.

B6 By using the Revised Social Studies Curriculum, students will grow up with different skills and levels of specialty like in political education, understanding the world deeply starting from the lower level –village –sub-county –county –district- nation-continent and the world.

B7 I engage myself in a conversation, I expect two things (widening my knowledge or going back as I come back but widening someone else’s. This enabled me to know other people’s points of view.

B8 It was achieved because the methods of teaching our secondary teachers used were not very effective unlike the Wiki platform where I have grasped the content with ease.

B9 I exchanged a question in form of a conversation on Wiki by asking whether Female Genital Mutilation is still there in some societies and I got a response that it is still there.

B10 I looked and analyzed the post of some members and commented on it and then added my contribution to it.

B11 Blank

B12 Different views on the teaching of history in the 21st century were clearly discussed in conversations that were posted. The view that teaching should not be teacher based has been achieved as students today are actively involved in history discussions.

B13 Because history teaching involves not only lecture methods as per say the use of question and answer method, discussions, role play and case study are very instrumental in the day to day teaching of different topics. For example, a topic like Nomadic Pastoralism in East Africa is chosen and a convenient method will be the (Karamojong group) hence teaching of history is guided well.

B14 There is no way I could interpret and understand history without consultations and research from secondary and primary sources.

B15 History teaching in secondary school is syllabus oriented and leaves teachers and learners in an empty thinking gap. Therefore, history teaching in secondary schools should be reflected and improved.

B16 Through sharing with other members on the choice of historical information posted like Ethnicity concepts examples, problems associated with Ethnicity and so I have understood these historical concepts.

B 17 Blank

B18 Some Information by members was insufficient.

B19 I strongly disagree with the way history is taught in secondary schools today; it is taught without life, less interest and yet it is so passionately interesting and fun.

Q21b)

B1 I managed to visit online sources and down loaded relevant photos and literature that clearly portrayed the different cultures thus giving me a better understanding.

B2 By using video clips, I was able to see the practice of social life in the different Ethnic groups. For example, I was able to interpret all the events. For example, Female Genital Mutilation and events at the king's palace in Buganda.

B3 Newspapers, textbooks and journals as well gave narratives stories of each Social, economic and political organizations of Ethnicity in Uganda (concepts of Ethnicity in Uganda).

B4 I read internet resources because they were the most convenient and available sources to me.

B5 By visiting historical sites like the museum was very vital and made me to understand more how history was constructed by the ancient people.

B6 It was achieved through having critical history thinking and this was done by relating and reading text books, videos in that, I came with my own view.

B7 By going to you tube and the museum, a lot of information pertaining Ethnicity (of different tribes was available and easy to interpret). For example, the Imbalu ceremony in Bagishu, different milking utensils in the H-department of the Uganda museum; Bahima, Karamojong that explain their cultures was available.

B8 Text books gave me the best knowledge that I needed and then pictures and journal articles clarified all that I had gained. This was cool.

B9 Some artifacts in the Uganda Museum were not available and some outdated which did not mean anything to me. Sometimes, I was not allowed to take pictures of the various artefacts to enhance learning.

B10 Video clips are well and clearly positioned on the Wiki page and by watching them more knowledge and information about history is understood and explained to everyone.

B11 I read history text books and also visited the Uganda Museum and got to know more about Ethnicity in Uganda.

B12 By continuously reading history related articles and searching the internet for information about Ethnicity in Uganda.

B13 Through the different journals I read online, they portrayed Ethnicity, giving well elaborated cultural practices of Sebei and Buganda, even criticisms in these journals were included.

B14 Through reading the information on access and play, this has been posted and commented on by different people and also through identifying the vivid cultural instruments used for traditional dances by different groups of people in Uganda as per say .

B15 The choices I have made were readily available and accessible.

B16 I read difference history text books and compare them in relation- Ethnic groups. At least, viewed journal article explaining of Ethnicity E.g Apaa and conflicts .

B17 I visited some historical books. For example, a history which talks about the different types or categories of groups of people in Uganda and so I had a chance to discover this. The is about Ethnicity of Acholi, Langi, Baganda among others.

B18 It was achieved through reading those sources about Ethnicity. I listened to the television programme, “Etitiibwa kya Buganda” I learnt a lot about Iron working with the stones called, and „Amatale“ which helped me understand Ethnicity.

B19 Mostly when it came to consulting elders, it was like transferred back to the past and vision exactly what happened, basing a strong feel of originality in the history of mostly my culture.

Q 22a)

B1 I acquired more knowledge about my country’s different cultures. As a teacher trainee, I realized a gap and discovered knowledge /methods on how to teach a 21st century learner rather than classroom.

B2 I understand what meant by Ethnicity concepts understanding different practices in some tribes; comparing my culture and other cultures in Uganda.

B3 A new understanding and approach to history teaching and learning as opposed to the traditional rote learning method. The skill of Information and Communication Technology is fostered in the teaching and learning of history.

B4 Collective information where members from different backgrounds (cultures) share information on the platform.

B5 It was achieved through having critical history thinking and this was done by relating and reading textbooks, videos in that, I came with my own view.

B6 It was enjoyable; you get to connect with people of first-hand information from people of different tribes. The platform is acting as an updating platform where different issues happening are posted.

B7 Got to know peoples' views which I did not know before. Got to know new people and we engaged ourselves in useful discussions.

B8 It made me appreciate the purpose and role of history in one's life. It made me interact with various people from different ethnic groups.

B9 The history shared and explanations are very clear from different people. Questions can be answered within no time/minute and history information can spread very fast with ease.

B10 It got to post something important in history and many people will have looked at it and they know and find out about it.

B11 Exchanging ideas and broadening of understanding on the subject matter. Updates on history in a continuous process and provides new knowledge in relation to the present.

B12 Engaging in construction of history helps children today to know about their ethnic backgrounds. It actually helps us to know the political, social and economic organization of different societies in Uganda.

B13 To understand and appreciate the aspects of culture of a given ethnic group, to relate and interpret the different norms, characteristics and other civic and societal aspects and ways of life of the people.

B14 My computing skills increased; knowledge widened and promotion of active learning through programmed steps than rote learning.

B15 I learnt different cultures and beliefs. Norms, values and languages increased as well.

B16 Historical elements like discovering the past events and seeing the present issues like ethnic wrangles and resolutions for the future that bring about people. For example, telling the ethnic groups like baganda and lugbara to become one because they belong to the same ancestors.

B17 Increase on the social contrasts of various people I met on the platform. Improve on the ICT usage in history instruction.

B18 I became more confident in sharing ideas

B19 Given the fact that through the Wiki platform, we learnt more about other cultures from people passionate and the subject was so thrilling.

Q22b)

B1 Some online sources that i majorly consulted had brief information about my research. There was also a challenge in getting the right people with the needed information.

B2 Basically operating the platform, I like uploading videos, pictures. Sometimes, the web cannot save or operate effectively; it's always very slow.

B3 The exercise is expensive as it is only possible when one is connected to the internet. Operating Wiki platform was initially a challenge. The attitude of taking it as course work dominated.

B4 Slow internet which could delay uploading of heavy files like video clips and also delay in playing such videos.

B5 Research was a problem because I had to think and search a lot before I could point out my own views and comments.

B6 Long time of saving information and continuing. Some websites failed to open showing me error in URL. Few people were active.

B7 The internet was a real problem. Had some members steal locking me as I was posting.

B8 It was new to me thus at first gave me a challenge to interact with the interface/platform. The computers I was using were too slow and this made me to give up sometimes.

B9 Network in School of Education is poor. Internet cables are very few in School of Education. And also still there is need to sensitize students on how to use it given that some of them are ignorant.

B10 Research was expensive in terms of transport to the museum.

B11 Internet connectivity problems and login problems and some unclear statements.

B13 I personally tried to get information about the Sebei culture from a friend but the response implied that I was making fun of him. Therefore, collecting adequate information was not easy.

B14 The problem of misplacement of information on a different site or place. Language barrier; because of different tribes contributing ideas which people can't understand or read locally. Time factor to manipulate the website and other places (network).

B15 The process itself was expensive for example watching a video online. Expensive in terms of time. A lot tension and fear, not to make mistakes.

B16 Getting used to the website was a challenge. Instable network at times. Difficulties in uploading pictures and more especially videos.

B17 Challenge of typing and writing skills. For example, it was my first time to chat with people on computer since I had no knowledge about social networking; so I have learnt now after facing challenges. Grammar of writing to people on social media.

B18 The resources in terms of reference books. The computer access was a challenge.

B19 Sometimes it was hard to remember concepts clearly.

23a)

B1 I simply urge the developers and those participating to continue with the project because it's a good future platform for transfer of knowledge.

B2 Training the participants about using the platform. Orientating them in different historical sites. What is necessary for the platform; reading and commenting and also having a computer lab.

B3 The involvement of illiterates and elders in our society is a necessity. Wide publication of the platform needs to be done just like face book is.

B4 Linking the platform to social networks like face book. Such that, if one member posts the whole group is notified.

B5 Cooperation is one of the ways since can help us to combine and come up with good work. Through motivations where by those do best have to be motivated.

B6 Opening up more accounts for different people. Engaging old people in making process; improving on the network to make it abit faster.

B7 If only the internet stabilizes; this will be a safest place in the world one can hide in during tragedy.

B8 Organize seminars /workshops to enable all historians /non historians to interact with the Wiki platform. Create face book pages, twitter pages about the platform.

B9 More funds to work upon the internet problems should be put aside. Written documents stressing the advantages of Wikis should be printed and supplied to students.

B10 The students should be introduced to the Wiki platform to contribute to different history meaning as they do their research.

B11 Continuous interactions and posting of updated reading material.

B12 Inviting more people from different backgrounds is a good move to get more detailed Historical information to improve the history meaning process.

B13 The Hermwiki coordinator should schedule sessions to meet all the members (face to face dialogue on how history aspects should be made clear during and after commenting, posting etc). An identified room or class should be secured in order to have extra lectures, about Hermwiki programme. Encouraging the members /motivation in terms of academic rewards.

B14 It should not be limited to access like its now; it can only be accessed by group members. Computing facilities have to be readily available especially for the history class.

B15 There should be ease in the computer access. Participants should be trained on how to operate the Wiki platform. At least posts should be edited on the Wiki platform in order to avoid undesirable information.

B16 Emphasis should be laid on training students on typing, posting information to websites so that once it is time for history wiki it becomes easy to functioning of history class. Increased number of resources to facilitate the learning of history. For example, computers, laptops among others.

B17 Sensitization of the interested members about the importance of integrating ICT in history instruction.

B18 Learners give more concrete information.

B19 Blank

23b)

B1 Blank

B2 Another thing important is when you need to get good details about something; people need to go to the site of concern. E.g when we are talking about FGM people must observe life not pictures, videos because this is the world of technology anything can be possible. A good historian must research her or his area of concern to come out with elucidated facts,

B3 Blank

B4 It was a good experience, I loved interacting with the platform; however the wiki needs to be modified at times when you post something or comment it does not appear there and then, that needs to be rectified.

B5 Blank

B6 It is enjoyable enriching information, but it is more active as other platforms and should give the chance to upload audio-visual films/videos.

B7 In the first place, it seems as though a joke has been cracked to one's ribs but when you explore more, the forbidden fruit becomes sweeter ever.

B8 Blank

B9 Yes, the Wiki platform will enable teaching history very enjoyable and therefore this should be considered as transformation from the old era to new Globe era where computer knowledge is important.

B 10 I have got a good experience and call upon anyone out there to join the programme because its educative.

B11 Keep it active; add more resources and link to other history interactive websites.

B12 This whole idea of construction of history meanings on a Hermwiki platform exposes one to historical concepts that are unique and I have liked reading through members' posts.

B13 Students should be encouraged to make more posts and become more active. Some students still have problems with log in and access problems. The objectives, aims and tolerant benefits should be made clear on the minds of the students so as to encourage them to develop good attitudes so that they become academicians.

B14 They questions were too many and required deep thinking and comprehending.

B15 Blank

B16 I would like to find out how the current terrorist attacks /issues in Uganda come about? Is it because of Ethnicity or more political issues because our country Uganda is not at peace because of terrorism.

B17 It was interesting to me and improved my ICT skills especially when it comes to instructing the history concepts.

B18 It was a good experience

B19 Improve through Retreats, presentations and perhaps seminars

APPENDIX C

OBSERVATIONS

Step 1 to Access & Motivation

C1 I am glad to join this wonderful program and I hope to do and get the best out of it as far as history teaching and learning is concerned. Let us make history interesting

C2 Dear members, I am glad to be introduced to such an interactive activity in history. Hope this shall make history more interesting.

C1 Derrick you are most welcome and feel at home to ask and share ur views here. Also introduce yourself.

C3 Dear members, am happy to participate in this wonderful project. I am hoping that it will help us to appreciate the use of various ways to conducting history teaching and learning to our students.

C4 I am so grateful to be part of history artifacts; I am going to utilize this chance to improve my ICT skills.

C5 Thanks goes to our lecturer for this wonderful initiative for this gives historians a platform this discusses and make history teaching and learning more meaningful. It's our chance to make a difference for it always starts with you.

C6 Blank

C7 Blank

C8 Blank

Step 2 : To promote online socialization

C1 My name is A.S, a third year student at Makerere University doing Bachelor of Arts with Education offering History and Religious Studies. I am privileged to be part of this Wikispaces program and i hope to get the best out of it and also make it sound and interesting in relation to history teaching. I expect to construct knowledge about history via this program. Wish you guys all the best!

C2 Hi, am D. I am currently a teacher trainee specializing in history and economics. For the time I have been exposed to history classes, it has been noticed that history is a living subject ,very interesting, interactive .This can all be possible depending on how is taught. For example if one is teaching about slave trade and exposes to learners a movie showing slave caravans it

creates a strong impression on learners and will always reflect upon slave trade. Therefore 21st century teachers should apply modern technologies to history teaching.

C3 My name is O. L a 3rd year student at Makerere University doing Bachelor of Arts with Education offering History and Religious studies. I am glad to be part of this pilot study and i do believe that with our combined effort we will make a change in History as far as its teaching and learning is concerned

C4 Hi am K J am proud to be a historian and for that matter a moment of silence as we recall that after 27 years, of unwanted confinement, the 72 year old prince of peace Nelson Mandela has sacrificed.

C5 Blank

C6 I am M. P, a third year student studying History and Religious education specifically majoring History, pursuing bachelor of Arts with Education in the leading and every ones dream university Makerere University and am so much honored to be part of Wikispaces program. Am expecting a lot from it like to acquire knowledge that can help me in teaching history of which many people think that history is boring. I wish you the best of all.

C7 I am M. D. a 3rd year student at Makerere University, School of Education and external studies, offering history and Kiswahili. I am happy to be part of this group, where by i believe that if we merge our efforts together we can make history more interesting in as far as teaching is concerned.

C8 I am XXX, a third year student offering History Economics. I happy to be on this project.

Preconceptions about history teaching

C6 History can seem to be hard according to many people, reason being that we talk things that happened long time ago of which we are not sure. It's hard to explain to students of 21st century what happened in in 18th or 19th centuries. However i believe that it depends on teachers' techniques of teaching where you can teach students and understand clearly and they can take history as current affair.

C1 XXX thank you, but the most problem here is that most students take history for granted and they think that apart from passing examinations it is not relevant. That has made them to apply cram work so that they can pass. Other than that they think it is not relevant since it is the past. To me I think that we should teach it in relation to the daily experience of the learners and show them how they apply the past in daily life situations. For example if we are teaching about

industrialization in Britain which we have never been, try to relate it to Uganda's condition and show we can use this experience to carry out industrialization in Uganda.

C2 History as a subject is subjective and also requires one to be independent in thinking, reasoning yet majority prefer cramming, at the end such people make conclusions that history is a boring and tiring subject. It requires a free mind, free from bias, and therefore according to research, it is one of the best and motivating subjects

C1 Oh yes, because it is what we experienced in high schools and even here at the University, that is why we need to make a change in this century provided it is a .com century where everything should be made interesting, including history. Therefore we are going to make a difference from traditional ways of teaching it that were boring to modern interesting ones and make it relevant to everyone.

C1 It is normally said that teaching history is hard and boring because we normally talk about the past which may not be interesting. But for me i don't think so because it depends on the way or method you use while teaching it and i guess that's why we are here now.

C3 And in addition some teachers and student thinks that history is not important because of the ways some time people can critic it not knowing that you have to know some think before coming with your judgment. for me i teach history to my learners using local examples for them to know that history is not only about the past but it reflect itself in the present world, for example by a learner analyzing his past days one can be determine to work hard.

C1 Yes, there are preconceptions outside the class room about history especially from the people outside the profession of teaching it as most of them say that history teaching is the simple and even passing it, that even it does not require much knowledge and efforts which i think it is not true because, history like any other subject needs knowledge, efforts, time and concentration. i believe that if it was like how they believe, everyone would cram and pass or even teach it.

Step 3: To support Information Exchange

C1 Kwame Nkrumah the former president of Ghana used the term neocolonialism to describe the socio-economic and political control that can be exercised economically, linguistically and culturally. Therefore it is a situation where a rich nation gains influence or extends it to a weaker one and this is mostly realized in the relationships between rich and poor countries plus the direct or indirect political control of a sovereign country by an outside power. There is always cultural assimilation, economic control and political influence on weak nations by strong ones especially their former colonial masters.

C6 Thank you my dear sister Sarah. Neocolonialism in its shortest term means regaining or re-colonizing the territory. Colonial masters gave Independence to those countries that were colonized therefore in order to gain access to those countries that has been decolonized was to recolonize but this time with "indirect" means. In short they gave Independence through front door and come back through behind door. Of course there are many signs of neocolonialism and as well as causes.

C4 To add to your contribution neocolonialism refers to indirect rule or colonialism manifested to third world countries in form of dressing code for example leggings, sports betting where a lot of profits are taken back to their countries and are brought back in form of donations, curriculum we use in schools for example one can refer to it as rote learning studying prairies which are not relevant to our communities.

C4 To me, neocolonialism is tendency where the former colonial masters of any colonial state extend her social political cultural and economic control of any country through different ways like, provision of aids, military assistance hence resulting into the exploitation of the concerned country.

C1 This topic can be taught to the learners using different interesting ways like citing relevant examples that students are familiar with. for example when teaching about manifestations of neocolonialism in Uganda as a teacher i can use examples which are common here like foreign aid, the presence of multinational companies like coca cola company, telecommunication networks like MTN, AIRTEL and i can go ahead to show them say the pictures about what these companies do, bring the real products in class and other things to the students that what am teaching them is not just history or the past is still going so they need to take it serious because it is always taking place in their daily life and experiences. so you can check on the pages to view some of the pictures of these companies that i can use in my class.

C3 Thanks for all your contributions, but my question is do you think it will be easy for third world to come out of it because most people now days prefer western culture than their own culture.

C1 Thanks Opio, it is our responsibility as 21st century teachers to make a change and drive students from the confinements of the classroom to outside. Show them how this neocolonialism can be solved other than merely talking about its causes and manifestation.

C1 Neocolonialism is not a new thing of yesterday because it has always existed since the colonial powers granted independence to their colonies but later on used a back door to control them indirectly. As a teacher, it is my responsibility to teach my students in a relevant way that

will enable them understand this concept and be able realize that it is important for them to acquire knowledge about it and be able face it when they get out of school. we well know that teaching about history does not only mean to pass exams or just know about something but also be able to apply that knowledge outside the classroom. for example a student who studied this topic can be able to know how to control neocolonialism and its side effects on the country in case one is, say a minister. In other words this topic should be taught targeting on how learners can apply the knowledge outside.

C4 Thank you Miss XXX but you did not emphasize why African countries experience neo-colonialism, its manifestations, reasons of neo-colonialism, effects of neo-colonialism, role of foreign aids because students need to know this.

To Access and play

C9 I would like to know whom historians regard as the mother of history.

C10 Hi friends, am seeking for advice in a project am starting in my village. This shall cover basic aspects like enabling my community to apply historical knowledge to solve some problems like; conflicts in my community so dear friends advise me.

C11 I am Ugandan, I come from family of 13children doing Education in Makerere, subject History/Economics. I want you to help me to do History coursework call 0779XXXXX.

C12 Hallo fellow Historians, my name is XXXXXXX, who is definitely not a muganda .Which teaching method do I use to explain this to my learners?

C13 Lecture discussion question and answer are the appropriate ones.

C14 I think u can use role play because it is more convenient and easy to use. Thanks.

C15 History has given me ability to think critically.

C16 How does history make you think critically, yet it has no calculations? Sometimes history is boring simply because we fail to understand. Try and give it time you will see what I am meaning. By the way are you going to teach history because you just found your self-offering it or you enjoy it and you derive satisfaction when you teach it?

C17 I love history so much that no one can stop me from teaching. Besides, no one forced me to join it, let every soul walk its own path. Mine walks in history. What about you guys?

C18 XXX means that history has given her the ability to analyze issues of which she could not do in any other course units. Give her the heart to feel the pearl of being a historian.

C19 History has gone to high indeed; this new technology has made life better, thanks facilitator

C20 Really this programme has made me to like history though for many years i so it as a boring subject u just read for the sake of passing exams but now i know people are going to like it more as i have done. Thanks a lot madam.

C21 The project itself is so great but am more in love with its theme, ethnicity, it's an opportunity for us to learn more and appreciate other ethnicities that we don't much about for we only judge what we hardly know about and we end up passing wrong judgments ,whoever thought about and wiki really did great, thanks.

C22 Dear fellow historians the method of teaching history today in the 21st century draws back to the colonial administration and implementation of the lecture method of teaching in which the traditionalists also encouraged in taking the idea that a teacher is the all source of knowledge through the lecture method, but today we need to employ other methods of teaching history like incorporating the lecture method with , question and answer, discussion and many others to bring about a relationship between the teacher and learners in class thanks.

C23 Thank you for your ideas, but how do you see the teaching of history in secondary schools currently as compare with the past, is there any improvement in teaching history in this 21st century or dose teachers adopted the methods you mentioned above? Apart from a teacher being the center of learning as in the past.

C24 All History teachers need to employ Information and Communications Technology in teaching the subject. I.C.T will make the subject more interesting than the traditional approach of rote learning.

C25 Let us learn from this QN; as historian why do you think we need to teach our students the history of Napoleon? Of what relevant is Napoleon 1 to historians. Thanks.

C26 May fellow historians let me start by Giving mi own understanding as to why Napoleon1 is still relevant to our history in the First place. His back ground, being from humble family and managed to emerge as a great emperor thing that teaches us to so had working and above all to trust ourselves. Look at how he motivated soldiers when they were going for batal"used words like Jental man i know your problems but am leading you to a place full of joy were u will find joy, happiness and such statements can also be used by us. His statement me ambition is like blood flowing, designed like a cuts clause to climb up words but not down words.

C27 Hi members it's my pleasure to join this group. I hope everyone find it interesting as I see at the first place. This is my name and what I like about it is, it's associated to the name of great men whose contribution toward the development of history and politics are of paramount importance. I am really willing to share with you a lot concerning history and also much willing to learn from you great historians to be.

C28 Yes it's real and it's happening in that today, history has been incorporated with other subjects in view of the new curriculum that is supposed to commence in 2017. The NCDC members or department has developed a so called social studies curriculum that is for O' level. Now the question to us historians is that how can history, C.R.E be taught at the same time and which methods are eligible to be applied here.

To promote online introductions

C9 Hi, I am XXX a third year student at Makerere University pursuing Bachelor of Arts with education. My teaching subjects are history (major) and Christian Religious Education. I am a Mugwere by tribe from Kibuku district and a Ugandan by nationality.

C10 Hello everyone, I am xxx, offering BAED and doing History and Religious Education. I am a Samia by tribe from Eastern Uganda, where being a man means having authority.

C11 I am a muganda by tribe and I love my culture so much. I share some of the pictures from Buganda and the Katikirro of Buganda and masengere symbol of the lion „Empologoma ya buganda“

C12 Hi, every one am XXX a university graduate history major currently teaching at St Mbaga's College Nadangira and am so honored to be part of the revolution in history teaching and learning (incorporating Educational Technologies in the teaching and learning process).

C13 Hi? Am XXX, a third year student doing arts with education i.e geography and history. I am glad to be a historian by making.

C14 Hi, Am GKS, a third year student doing Bachelor of Arts with Education. My areas of study are history and economics. I am happy to be part of this project. I am a muganda by tribe and I love my culture so much. I share some of the pictures from Buganda and the Katikirro of Buganda. The masengere symbol of the lion (Empologoma ya buganda) is also shared here.

C15 Hi, am XXX and am a second year student offering History and Luganda at Makerere University. I am too blessed to be here.

C16 I salute you comrades....my Name is XXX a student at Makerere University, second year pursuing a Bachelor of Arts with Education in History and Geography. I am a Muganda by tribe belonging to Engabi clan. I love my culture, Ethnicity and above all I love my History. Am very happy to be part of this revolution in the study of History and digitalizing teaching and learning in our country Uganda, „for God and my country.“

C17 Hello am XXX offering Bachelor's degree in Arts with education doing Geography and History. Happy to be here and hope for the best.

C18 Hi, I am XXXX a third year student at Makerere University pursuing Bachelor of Arts with education. My teaching subjects are history (major) and Christian religious education. I am a mugwere by tribe from Kibuku district and a Ugandan by nationality. It is a pleasure being part of this great invention which is aimed at improving on history teaching and learning. I wish to have great interaction with you all and all the best as we do this together. One thing i so much love about my culture is the respect that women give to their husbands. My tribe in terms of belief may not be so much different from other tribes most especially Basoga and Baganda since while discovering our history, i found out that we have the same origin.

C19 Hello everyone on the History Education Hermwiki platform, am XXX a third year student (2014-2015) offering History and Religous studies at the mighty school of Education at the Ivory Tower (Makerere University). Am a Ganda by tribe and a Ugandan by nationality. Am glad to be part of the history teaching revolution that was been initiated by our dear lecturer Ms. XXX, so i do appreciate creativeness and innovativeness she has exhibited. Let's all together work hard so that we achieve our intended objectives of this program. Thanks for being part of us and may God bless u all.

C20 Hello, fellow Historians I'm XXXX from Northern part of Uganda (Western Nile),Arua District, a Madi by tribe. I am a Second year student of Makerere University doing Bachelor of Arts with education, History and Geography. I'm very privileged and glad to be part of this Great Technological Revolution in teaching and i want to say may the Lord bless each and every one participating in the programme.

C21 Hello, how is life, I am a second year student of Makerere university Kampala Uganda doing Bachelor of Arts with education and offering geography and history i am so much happy to join PBWiki History education hermwiki class

C22 Hello, history students I am XXX offering BA. Education History and Economics from Kabarole district let's work together and improve history in our country. Thank you.

C23 Hi everyone, my name is XXXX a student of Makerere University at the verge of completion. Am a muganda by tribe and love my culture so much. Today is my break through here and am hoping for adventure through the various cultures of this wonderful place called Earth as i also share with you my experiences historically. Hope for the best.

C24 Hullo everyone in the Hermwiki class. I am XXX, offering BAED and doing history and Religious Education. I am a Samia by tribe from Eastern Uganda, where being a man means having authority. Most of the Samia names are attached to events. The most popular clan is the 'bagwe' and am proud to be part of it. Our staple foods are millet, sorghum, cassava. Being a Samia means a lot of customs that one has to follow. It is an interesting culture that one has to experience and will believe in unity and harmony that we live in. Hoping to learn a lot more from the class as I share more.

C25 Hello intellectuals am a teacher trainee a second year student doing History and Geography am from Bugyira kitojo, Buyanja Rukungiri district in south western part of Uganda am 22years old the first born boy to Mr. Philip am glad to be part of the enlightened ones. For god and my country.

C26 Greetings, I am XXXX, student from Makerere University pursuing a Bachelor's degree of Arts with Education. My teaching subjects are History and Luganda. I am from Kawempe. So happy to be part of this group.

C27 I am XXXX, a postgraduate student at the school of Education and External Studies. My teaching subjects are History and Religious Education. I come from Soroti and proud to be associated with all the members on this page. Thanks to madam XXXX for introducing me to a greater world of Historians. Let us always be proud to be teachers of History. I hope to learn much from everyone on this page.

C28 Members, i always take concern when people talk about the culture. as we all knows culture concerns the traditional norms and believe. I love Acholi culture and i always take my time to know more about my culture. It will be very interesting as i shall bring you back on board to discuss for you the great northern Acholi traditional culture. Please stay tune.

Making shared Interpretations of history meanings

C9 An ethnic group is defined as a social group that shares a common distinction in form of culture, language, religion, norms beliefs and among others.

C10 I would use interactive methods like group work, field study, case study; project and role play to teach Ethnicity in Uganda. This is because they are learner centered.

C11 In this context, Ethnicity gives each individual of 21st century chance to know each belief, practices, norms and customs of different tribes through learning/ teaching.

C12 Ethnic group; a social group that shares a common and distinctive culture, religion, language, the life style for Sebbei when comparing Baganda is different in social, political, and economic ways of living, you see that sebbei the most economic activities are keeping animals and agricultural practices, meanwhile Baganda mostly base on business although they, also practice agriculture in small scale. In social life Sebbei do practice circumcision both men and female and for Baganda is not a case. Somebody may ask why this practice female circumcision (Female Genital mutilation) does and male circumcision? for women is basically to bring down sexual desire and also to graduate them to adult hood stage and men also is to show them that they are mature (research from Cheptay Shalika-Kapchorwa) When comparing Sebbei with other tribes, other tribes have the same social kind of living, for example in economic activities we another tribes like karomojo, Banyankole, and other tribes that keeps animals, but when comes to social lives like circumcision Bagisu share the same traditional belief with Sebbei community. Teaching Ethnicity in secondary school, it would help learners of new generation to know their traditional cultures, norms, believes, how it is practice within the community and with high respect unlike to day people have failed to practice their traditional ways of living, like style of dressing, eating, living with one another, and above all respect to community.

C13 That's very true Fred since many of our children today know little about their ethnic back ground. I believe it's a fantastic exposure.

C14 Even though the Sebei are highly conservative in various respects, Kupsapiny (Their traditional language) has been losing its vitality. Primarily because the history of the people has been adverse to the maintenance of their language, it has undergone considerable change under the influence of English, Swahili, and Lugisu (Bantu). Unlike the Baganda who till date still treasure and protect their language (Luganda) from losing vitality however this can also be attributed to the Colonial legacy.

C15 For hundreds of years, the Sabiny have performed female circumcision as a cultural practice that initiates adolescent girls into adulthood/womanhood. However in the recent past, the community has come under sharp criticism from the Ugandan government and other concerned parties such as non-governmental organizations. The government has even gone a step further and criminalized the practice. Nevertheless, this has not deterred the Sabiny from performing female Genital Mutilation every year .Therefore, in this study I explore the reasons why female circumcision is continually practiced among the Sabiny despite the sensitization done by the government and different nongovernmental organizations to show this community the dangers of the practice. Among the Sabiny, the practice is termed as „wonsetibik“ while the

WHO describes the practice as “all procedures involving partial or total removal of the female genitalia whether for cultural or other therapeutic reasons. The research was guided by three goals which included, analyzing the power dynamics behind female circumcision, examining the perception of Sabiny FGM and finally to analyze the conflict between traditional societal structures and external forces such as the Ugandan Law and Advocacy programs. The study was carried out in May-June 2013 in Kapchorwa district in Uganda among the Sabiny residents of London Bridge. The informants included the clergy (Church leaders), advocacy programs (REACH), women, men and a focused group discussion of students from Kapchorwa PTC. In this study, I argue that indeed female circumcision is part of the Sabiny culture and it is their right to preserve it. However, given the dangers and risks that are associated with the practice, I propose that both government and the Sabiny community should come to a round table and discuss alternative cultural practices that can serve as rites of passage for the girl child.

C16 The Sebei are few in number and live on Mount Elgon and the nearby plains close to Uganda’s border with Kenya. Their traditional political organization was decentralized. No individual could command obedience from all Sebei. The initial district (Kapchorwa District) was a backwater county of Bugisu during the colonial period and shared in policies producing modernization only to a small extent until a road was built across the mountain in the late 1940s. The Sebei are polygamous with women marrying soon after initiation, in their mid-teens. Men traditionally married later, closer to their thirties. Each wife has her own house which includes her kitchen. She also has her own plot of land to cultivate and usually collaborates with her co-wives. The women do most of the cultivation, cooking, beer-making, house maintenance, and milking of cows. The men look after the cattle, sheep and goats, clear bush, and occasionally hunt game.

C17 Buganda is the largest kingdom in present day Uganda, and has been from the time believed to be around the 1840s, when the then dominant kingdom of Bunyoro started to disintegrate. Buganda took advantage of the turmoil in bunyoro to expand her territory, and by the time the Europeans started coming in, Buganda’s territory spanned vast areas. The monarchical setup of Buganda helped its organization. Prior to 1860 the history of Buganda was perpetual though with considerable and occasional rivalry with her neighboring Kingdoms, which fueled constant fighting over various territories amongst them. The late King Kintu, the first 'Muganda', established his homestead after winning the battle between him and his brother Bemba, probably during the mid-13th century. This marked the beginning of a gradual expansion of one of the most powerful kingdoms in the East and Central African region. Originally, the Kingdom of Buganda was a small territory consisting of the Busiro, Busujju, Kyaddondo, Mawokota and some small portions of Ssinga and Bulemeezi counties. However, during the early years of its making, there were considerable rivalry between Buganda and Bunyoro Kingdoms resulting into constant fighting over various territories between the two. This led to a gradual expansion. Buganda is located in the south-central region of the country known today as Uganda, as shown

in the map below. This is right in the heart of Africa, astride the equator, and at the source of the great river Nile. The people of Buganda are referred to as Baganda, their language is referred to as Luganda, and they refer to their customs as Kiganda customs. Sometimes the generic term Ganda is used for all the above (especially by foreign scholars).

C18 Basically, people are people, and what human beings care about primarily is other people. All the higher primates, actually: almost all spend most of the day interacting with each other. This is the main human concern. Particular, ethnicity is actually important because People write books about different traditional cultures, and considers the classification important. Are we truly committed to the ideal that all people have indistinguishable backgrounds, or at least so indistinguishable that nobody will care about finding ones with some particular background? Do we think human affairs so mechanical that background does not matter? In this context the ethnicity gives each individual or 21st century chances to know each belief, practices, norms and customs of different tribes who is not belong to him/her through learning or when is taught. It can also critically make new generation to know their traditional ways of behaving, dressing, eating and other important issues in their respective ethnic group that help them in some aspect when followed, for example, Sebbei belief that being uncircumcised is assign of not giving birth or losing your child in the future. In further particular, with artists of all kinds: Almost all (where the articles are sufficiently expanded) are people for who there is sourced discussion about how the background affected them for nobody would write extensively about them without discussing it, nor do they mostly avoid discussing it themselves when speaking about their work. Even with others: Nationality, ethnicity, religion, place of birth and education, schools attended all are important in people's background.

C19 An ethnic group is defined as a social group that shares a common distinctive in form of culture, language, religion, norms beliefs and among others. We should note that the life styles of living between the baganda and the sebbei they differ very much in different ways like, under social ways, the baganda do not carry out circumcision while the sebbeis carryout it. The sebbeis have got their reasons why they do it which is if a man goes for that, that is when is considered as full and a real man who can now have family and can produce .The sebbei and other tribes do differ apart from the bagisu people who do have the circumcision too. Other tribes like the banyankole karamajongs, and others have the same economical ways with the baganda tribe. They do farming; grow crops, rear animals and others. Through teaching ethnicity by the teachers, helps the students in secondary schools to know how their traditional settings were in form of their cultures, norms and others. The relevance of teaching ethnicity today could be that, the teachers should encourage the students to appreciate the traditional ways of living. The behaviors in form of dressing; children had to respect the elders when talking to them and among others.

C20 Different approaches to understanding ethnicity have been used by different social scientists when trying to understand the nature of ethnicity as a factor in human life and society. Examples of such approaches are: primordialism, essentialism, perennialism, constructivism, modernism and instrumentalism.

C21 Primordialism, holds that ethnicity has existed at all times of human history and that modern ethnic groups have historical continuity into the far past. For them, the idea of ethnicity is closely linked to the idea of nations and is rooted in the pre-Weber understanding of humanity as being divided into primordially existing groups rooted by kinship and biological heritage. This approach is further subdivided into three as seen below, Essentialist primordialism further holds that ethnicity is an a priori (religious) fact of human existence, that ethnicity precedes any human social interaction and that it is basically unchanged by it. This theory sees ethnic groups as natural, not just as historical. This understanding does not explain how and why nations and ethnic groups seemingly appear, disappear and often reappear through history.

C22 Kinship primordialism holds that ethnic communities are extensions of kinship units, basically being derived by kinship or clan ties where the choices of cultural signs (language, religion, traditions) are made exactly to show this biological affinity. In this way, the myths of common biological ancestry that are a defining feature of ethnic communities are to be understood as representing actual biological history. A problem with this view on ethnicity is that it is more often than not the case that mythic origins of specific ethnic groups directly contradict the known biological history of an ethnic community. Geertz's primordialism, notably advocated by anthropologist Clifford Geertz, argues that humans in general attribute an overwhelming power to primordial human such as blood ties, language, territory, and cultural differences. In Geertz' opinion, ethnicity is not in itself primordial but humans perceive it as such because it is embedded in their experience of the world.

C23 Perennialism, an approach that is primarily concerned with nationhood but tends to see nations and ethnic communities as basically the same phenomenon, holds that the nation, as a type of social and political organization, is of an immemorial or perennial" character. Smith (1999) distinguishes two variants: continuous perennialism, which claims that particular nations have existed for very long spans of time, and "recurrent perennialism, which focuses on the emergence, dissolution and reappearance of nations as a recurring aspect of human history. Perpetual perennialism holds that specific ethnic groups have existed continuously throughout history. Situational perennialism holds that nations and ethnic groups emerge, change and vanish through the course of history. This view holds that the concept of ethnicity is basically a tool used by political groups to manipulate resources such as wealth, power, territory or status in their particular groups' interests. Accordingly, ethnicity emerges when it is relevant as means of furthering emergent collective interests and changes according to political changes in the society. Examples of a perennial interpretation of ethnicity are also found in Barth, and Seidner who see

ethnicity as ever-changing boundaries between groups of people established through ongoing social negotiation and interaction.

C24 Constructivism sees both primordialist and perennialist views as basically flawed, and rejects the notion of ethnicity as a basic human condition. It holds that ethnic groups are only products of human social interaction, maintained only in so far as they are maintained as valid social. Modernist constructivism correlates the emergence of ethnicity with the movement towards nation states beginning in the early modern period. Proponents of this theory, such as Eric Hobsbawm, argue that ethnicity and notions of ethnic pride, such as nationalism, are purely modern inventions, appearing only in the modern period of world history. They hold that prior to this; ethnic homogeneity was not considered an ideal or necessary factor in the forging of large-scale societies.

C25 I conclude by saying, a historian would be missing a point if he doesn't take into account the different approaches to ethnicity that is: primordialism, essentialism, perennialism, constructivism, modernism and instrumentalism as discussed above by the different scholars.

C26 Ugandans can be classified into several broad linguistic groups: the Bantu-speaking majority, who live in the central, southern and western parts of the country; and non-Bantu speakers who occupy the eastern, northern and northwestern portions of the country (who may in turn be sub-divided into Nilotic and Central Sudanic peoples). The first category includes the large and historically highly centralized kingdom of Buganda, the smaller western Ugandan kingdoms of Bunyoro, Nkore and Toro, and the Busoga states to the east of Buganda. The peoples in the second category include the Iteso, Langi, Acholi, Alur, Karamojong, Jie, Madi, and Lugbara in the north and a number of other smaller societies in the eastern part of the country.

C27 Central Sudanic languages, whose speakers also arrived in Uganda from the north over a period of centuries, are spoken by the Lugbara, Madi, and a few small groups in the northwestern corner of the country. Central Sudanic languages are spoken by about 6% of Ugandans, most of who live in the northwest.

C28 I think the concept of ethnicity is an important one which people have to understand in its broad sense. Once it is misunderstood, it will be mishandled to cause ethnic chaos as was the case in Nigeria (1967-70 Igbo ethnic war), The Congo (1960-63 Katanga ethnic war, and of course what is going on the South Sudan; the youngest nation on earth, where the Nuer have risen up against the Dinka. The British met Uganda on an ethnic battle field (Buganda vs. Bunyoro) and they amplified this divide further. Again in situations where Buganda region was favored at the expense of the rest of the Protectorate (Remember all the colonial socio-economic

and political developments were centered in Buganda) and this set the rest of the Protectorate at edge against Buganda. Everything was done with intention to sharply divide so that at the end it would be hard for the Ugandans to handle their independence smoothly and the consequential complications would give the Wazungu (British) an excuse to come back as a uniting factor. So we need to address this ethnic issue from a historical point of view and devise a paradigm of how we can use education to attain to that.

Preconceptions about History Education

C9 History learning in secondary schools is teacher centered at the expense of students centered which at times proved the teachers' fountain-ship in imparting knowledge which is not the case when it comes to learning.

C10 Learning in the 21st century ought to be more learner centered so that the learner needs are taken in consideration and also that learning is more real and practical to solve day to day problems.

C11 With coming in of modern equipment like computers, projectors, teachers should go for refresher courses and trainings that can help them on how to integrate such materials in the teaching and learning process.

C12 History is a subject that keeps on updating us in the world. One is able to know everything though he or she was not present by that time when the event happened.

C13 Well, as I continue sharing how history education currently taught in secondary schools, as my sisters Julian is trying sharing with, is student-centered learning although in some extent is both students and teachers discussion, taking an example from the brief video teaching history in the 21st century is kind of discussion between the facilitators (teachers) and the learners, because question are asked and discuss with both teachers and students as it is happening in that video.

C14 When students are asked that, why did missionary decided to come to East Africa?, When were you introduced to who were missionaries? It can become both students and teacher-centered, because students have known that this people are Christ believers, so they must have come for either converting people to their faith or spreading their faith to other people. And this is how history is taught in this 21th century by sharing ideas with learners.

C15 I still urge that the current teaching of is history is better because is not tiresome on the side of the teacher even learners because when they come together and discuss as shown in the video up, students cannot forget what they discuss with their teacher in the class and that is why student are excelling in history both in O & A level this days.

Something also to count on is modernization. Many teachers have just decided to remain the way they were in 20th century, with coming in of modern equipment like computers, projectors, teachers should go for refresher course that can help them on how to integrate such materials in teaching and learning process. With regard to Uganda this seems to be just a dream because most teachers are still depending on traditional methods of teaching, using knowledge that is even outdated. The current teaching of history is still not catering for the needs of learners, parents and the whole society.

C16 This still goes back to how we present ourselves as History Teachers for in the past decades our colleagues have failed us in letting the learners realize the worth of the subjects since to many learners History is just about the past like the 1789 French Revolution or even Reign of Terror and the basic way of changing this is through relating the past to the present for example if a Teacher is teaching the Causes of the French revolution HE/SHE should draw an example from the current situation in Uganda say the high levels of Corruption that are eating up our country leaving the poor in total suffering and misery and only then shall we attach value to our subject.

C17 I agree with you and not only USE but almost three thirds of our schools. But i think if the trend is to change then it should start with the first world schools and probably the methods of teaching while training the teachers.

C18 I think the criteria for choosing History teachers should change. Teaching is in born. An ideal history teacher should be naturally humorous or we will soon lose all our students.

C19 History teachers might be having the content to deliver to the students but the methodology may not be adequate. Think of embracing ICT in the teaching process, where learners can also have visual and audio aids to help in the learning process. Visual aids would help to understand even more that just explanations and stories. and this also creates a more lasting memory of what is learn if put under visual aids like video clips on historical events. History teachers should be equipped with technical know how and make use of ICT.

C20 The way i personally perceive history is that is a subject that keeps on updating us in the world. One is able to know everything though he or she was not present by that time when the event happened. It tries to let us know how different cultures and others used to handle their lives and we compare to the present. It is history that helps us to relate between the present and the past as a way of looking for some adjustments since we are now under postmodern world of living.

C21 Quite frankly, it's true that history is theoretical but there are some concepts that can be enhanced by features in today's world, it is so a shame that there are many people who claim to be historians but when they have never visited the museum, point is, there are historical features that can be visited in an attempt to make history more practical and real, remember. It starts with you; it's you who chooses what teacher you want to be.

C22 I think the content is okay but the way it is delivered to the learners makes it relevant or irrelevant, so i appeal to all teachers to relate the experiences familiar to learners in the process of learning, an example , if you are to teach about revolutions, you can refer learners to the current riots /strikes in universities or revolts when Buganda king wanted to go to Bugerere, with such , a lot of lessons can be learnt by learners and also, it promotes critical thinking skills among the learners.

C23 The Nigerians have a saying that goes; "It is only a fool who forgets his or her past." History is that discipline of human Knowledge that proves us not fools because it offers us an opportunity to study our past, present and gain the ability to plan better for our future. We build on the strengths of our past and try to minimize the mistakes that we made in the past in the present so as to have a more informed and knowledgeably planned basing on the past experience of the human family.

C24 Today is a wonderful day for me because; i have learnt some ideas in the history of the two great world wars. This is particularly to the fact that, neo-colonialism has been deeply rooted in the African continent up to-date drawing its influence during and after the cold war politics of 1945_1989. The alliances that the eastern and the western blocks e.g. NATO, O.A.U in the economic perspective supported the African countries through giving economic assistance in the exchange of accepting either capitalism or communism respectively...to me personally,, since Africans also participated in the war, did it achieve to the extent that the countries that were greatly affected by the wars e.g. Germany, Japan among others have rapidly developed and if so, should African countries as a continent look back to their socio-economic and political indifferences so that they can streamline and join efforts to sort and correct their mistakes??....."through the theme Africa for Africans" and so this will bring about economic growth and development in Africa as the way Europe , America, Asia and others have done even after the cold war periods.

C25 Well members as we all know that history is the study of past event and the present. we must understand the past in order to polished the present which required a lot of research from the learner and the teachers since teachers are not the fountain of knowledge. the teaching approach in history should be taken seriously and more analytical since history may shape or destroy the mine-set of the learners. Now back to the history teaching method in secondary school, generally history learning in secondary schools is teacher centered at the expense of students centered which at time proved the teachers fountain-ship in imparting knowledge which is not the case when it comes to learning. Because the curriculum of education in Uganda is subject centered, learning proved to be examination oriented. This therefore made teachers to be guided and directed by the syllabus to achieve better results more particular in the secondary curriculum. In my conclusion, history education should be open ended in order to allow in

difference education leaning approach to be practiced in secondary school. Otherwise, history will be of continued events without the present.

C26 The teachers in the field have played their role, some in the right way and others not very well. But now for the now we need to make the teaching of history more meaningful. you realized at times we teach under pressure to finish the syllabus and end up living some very useful concepts. For that case therefore the history teachers need to adopt the use of the media and other platforms to improve the understanding of the discipline.

C27 Thanks to you all for always endeavoring to share yo ideas. I think we history teachers should always endeavor to ensure that we create interest in the subject among our students. There are many things we can do to enhance practicability of the subject during the learning process and as far as daily life is concerned. Eg. We can always present documentaries to our students or at times, we can take students to historical sites which reveal a lot of information to them. Creativity is very essential on our side. However, we should be careful not to give students more than they can consume

C28 Money, when shall this song stop ,i think it won't ever stop. If that's the rhythm of the day, let's change the lyrics. Taking students out for historical sites discoveries should be planned with the school administration with support from the history department. I don't think that when time for a chemistry practical in the laboratory approaches, science teachers scream the song of money, its simply because they and the school administration plan for it earlier on and the historical sites are the history subject laboratory. So if we neglect them then our learners shall have those false imaginations of how a historical event took place with no slightest idea of the practicability of it and at the end of the day lose hope in the subject. Do you ever ask yourself why in big schools or your high school, the history class shrinks day by day year in year out? It's all because the history teachers forgot all about the history laboratories and never think of an incredible teaching aid when coming to class but instead they walk in with yellow notebooks and start lamenting in the ears of dozing learners. Members let's think outside the box of money cries. It starts with you because Rome was not build in one day and the cross is on us to change the attitudes of the new generation because your history teachers are almost expired and their mindsets are as if they are fixated in the 1789. Am sorry if i am offensive.

To support Reflections and Framing History

C29 Slavery also exists in our own house holds today. Look, you get a young girl or boy from the village without her consent but you make payments to the parent/guardian; so she is sold off.

C30 Today people surrender in to Slavery willingly like criminals. Perhaps because of ignorance and poverty. As a result of being unemployed, a number of companies have come up taking people abroad for better jobs, convince them of high payments and good life.

C31 Men sometimes are forced to join army when actually was not their original intention.

C32 Around the world human traffickers trick many people into slavery by false promises of good jobs or good education, only to find themselves forced to work without pay, under the threat of violence

C33 Changing the mindset is the first steps to cause change which automatically also changes our attitudes. There are also ongoing conferences and seminars about changing the mindset of the youths to help fight poverty.

C31 One other way of overcoming manifestations of Slavery today like Poverty and Unemployment is to use the skills acquired from the Education system.

C33 I am also proposing that when we are teaching in schools, we should try to integrate slavery and slave trade not only in history but also in other subjects that we may be teaching as well.

C31 My personal understanding of Slave Trade is that, it is the buying and selling of human beings while Slavery is the state of being enslaved.

C33 Mr. XX, I also think that to some extent slavery contributed to poverty levels in pre-colonial Africa and this has continued up to date.

C30 In the past, Slave trade was a situation of giving out a person into captive to go and work without pay and done without the knowledge.

C31 The images were obtained <http://www.scaruffi.com/politics/slavetra.html>.

C33 From my experience, I believe history teachers should use active methods to teach history like discussions, question and answer, role play other than the just dictating notes to the students. Students become excited when they make contributions to what is going on in the class.'

C30 From the school practice experience, using discussion method in teaching slave trade in East African is more effective method in helping the learners understand and be in position to relate ideas to the current situation.

C 33 A multidisciplinary approach which brings together several disciplines, usually two or three, based around a theme, idea, or concept should be employed.

C33 Using interactive tools such as the Slavery websites and maps are useful to illustrate this from a global perspective. Newspaper stories highlighting the occurrence of slavery in the Uganda, East Africa or Africa in general can be of great significance to learning”.

C32 Slavery also exists in our own house holds today. Look, you get a young girl or boy from the village without her consent but you make payments to the parent/guardian; so she is sold off.

C30 Today people surrender in to Slavery willingly like criminals. Perhaps because of ignorance and poverty. As a result of being unemployed, a number of companies have come up taking people abroad for better jobs, convince them of high payments and good life etc.

C30 Men sometimes are forced to join army when actually was not their original intention.”

C31 Human traffickers persuade people into slavery by false promises of employment or good education, only to find themselves forced to work without pay.

C29 Changing the mindset is the first steps to cause change which automatically also changes our attitudes. There are also ongoing conferences and seminars about changing the mindset of the youths to help fight poverty.

C30 One other way of overcoming manifestations of Slavery today like Poverty and Unemployment is to use the skills acquired from the Education system.

C33 I am also proposing that when we are teaching in schools, we should try to integrate slavery and slave trade not only in history but also in other subjects that we may be teaching as well.”

APPENDIX D

REFLECTIVE BLOG ENTRIES

My preconceptions about History Education in Uganda

May5

I have noted down my preconceptions about History Education in Uganda because I am guided by the Gadamerian Historical Hermeneutics. Gadamer argues that to understand another person, one needs to first understand themselves. This implies that, they need to do away with their own inner preconceptions and openly and freely listen to another person. This is why I have shared my preconceptions about History Education in Uganda.

In Uganda, the history discipline is taken at the Ordinary and the Advanced levels. However, at the Advanced level, history is taken as an optional subject. Students are exposed to various papers at „O‘ level like History of East Africa, History of West Africa, History of South Africa and History of Central Africa. The History of East Africa paper 1 is compulsory which is supposed to focus engage with Ugandan history at length so that students can look at their national development from the past relate to the present and possibly pick lessons that can influence decisions on what the future may be like.

The Advanced Level curriculum for example caters for European History, African History among other papers are core and are taught. However, various researchers have noted that the Ugandan History Education system covers more of the foreign history that its own local history. I think this is because of the British Colonial Education System that Uganda inherited in the 1896 when Uganda became a British Protectorate that has gone on up to now. Uganda obtained her Independence on 9th October, 1962 but little has been done to change the history syllabus to focus on Uganda so that learners feel the relevance of studying history while also picking lessons from other countries“ history. Plans are underway to revise the new lower secondary history curriculum that will focus more on the needs, skills of the learner.

Faced with a detailed history syllabus in Uganda, most teachers focus on content knowledge dispensing and transmission which lead memorization of facts gearing to pass examinations.

History teachers teach the way they were taught; authoritarian transfer of knowledge inherited from the British and need to cover a lot of material within a short period of time. These can also be referred to as the Behaviorist teaching approaches like lecture, storytelling – didactic way of teaching. This teaching does not encourage students to think historically since they are not given chance look at multiple sources of evidence, analyze them depending on the time, context interests, cultural inclinations to rule out the prejudices and Biases that the author may harbor.

Also learner needs are not catered for and these approaches cannot help the learner reflect on the past to solve real life problems (no link between theory and practice).

Observation

A need to engage students in dialogic interactive methods like discussions, debates, questioning and answering that enable the educator to listen to the student's thinking. Historical Hermeneutics caters for this under Dialogue.

Observation

Apr1

I have observed that students make more postings over the weekend. Also, some inspired others to join. We started with a large number but we have now zeroed down to a small manageable group. It also important for the educator to keep on guiding the learning process. When students see you online they get motivated to make postings and respond to each other.

The educator's role as a guide on the side is still important in scaffolding the learning process the Wiki. Educators should also facilitate the learning process and listen to students' thinking.

Uploading family pictures

Apr8

Under Access and play which is the play site, one student uploaded her family pictures and her babies. This has an implication on sharing family history with the present. Gadamer also highlights that we History belongs to us, long before we understand each other, we understand history in a self-evident way this our families. This speaks a lot on understanding history from first understanding self, cultures and family backgrounds. Historicity was exhibited at this level.

Also studying one's cultural heritage makes one feel part of history. Cultures impart moral values and enable people to appreciate, value and respect each other's „cultures.

Access and play would make learning history exciting and fun while also improving on the computer literacy skills by trying out different buttons over and over again- inspired learning.

Apr13

As earlier communicated the Hermwiki platform was communicated in class. Members were recruited on voluntary basis and had to register their emails and phone contacts so they could be conducted through their emails and phones. However, my observation is that participants take long to check their emails so I also contacted them by calling them directly. Some participants offered to embed the wiki page on to the face book page arguing that participants always get Facebook notifications and can easily get to know what is going on on the Herm wiki platform. The number of participants who made postings per each step were as follows;

- Under Access and play, 21 participants made comments and inquired about the platform.
- Under Introductions; 26 participants introduced themselves by telling us their name, year of study and their family background/culture/tribe.

- Under pictures, images and videos; participants uploaded and shared 5 videos about female Genital Mutilation and 14 pictures about their family history and cultures. They also interpreted what ever they posted and attached meaning to their posts. 6 comments were posted with participants attaching meaning to the pictures, images, audios and videos.
- Under Preconceptions about History Education 3 videos were shared about the current teaching of history in the 21st century. These were corroborated with 16 comments about the participants' preconceptions about history education.
- Under Exchanging History artifacts 4 pictures were shared and 8 comments were made under this stage.
- Under making shared Interpretations of history meanings 5 videos were shared including interviews with primary sources(Sabiny persons). The comments made were 6 on this step.
- Under Reflections and Framing history 6 comments were made.
- Under questions and clarifications 14 comments were made were participants asked questions and others responded to the questions.
- Under Classroom photos, several pics were shared from the Computer lab trainings and in a F/F Hermi wiki meetings.

Observations

Access and play -Learning history is existing and fun.

Online socialization- Family History is relevant- Historicity exhibited, Dialogue between the past and the present.

Information Exchange – Dialogue exhibited because of open answering and asking questions

Knowledge construction – Collaborative construction of history meanings

Development- not achieved few responses- A few students reflected between to bridge the gap between the past and present. Only a hand full mentioned that their experience of engaging with the Wiki platform. Even the interviews did not mention this either.

Authenticity- not achieved few responses. Few students added and edited each other's content. They thought what was presented was good enough and did not need edit. Some interviewed elders about what actually happened. This is still a problem. DBR suggests peer review validating, at Conferences and also through publications.

Students guiding and helping other students on the Wiki

Apr13

Two lead students offered to help other students through the five different steps of Salmon's five stage model(Salmon, 2002). One student requested the lab technician to offer him some time off so that he would train his fellow students in the computer lab (teach back). This social presence was good because some students learn better through their peers. However, there is always a

challenge of internet fluctuations and the training are slowed down in the computer lab. On a positive note, several participants have reported that they have greatly benefited from being trained by fellow students as some times students learn through collaborations and interactions with each other.

Another student offered to train others his well-designed power point presentation and offered to take the students through and interpreted each stage of Salmon's model. Fred

This was very encouraging and motivated other students to participate on the Wiki platform.

I observed that most of there very active participants on the Wiki had a lot of interest in using technologies. Another was doing part-time teaching and using face book for his history class and was excited about the Wiki platform and proposed to embed it on the face book page because most students had accounts on face book could easily see the post and respond on the Wikis.

April 13, 2015.

APPENDIX E

PARTICIPANTS' QUESTIONNAIRE

Dear participant,

Thank you for accepting to participate in this study. This questionnaire aims at obtaining your views/comments on the construction of historicity on a Wiki platform. In completing this questionnaire you are kindly requested to be as open and frank as possible. The questionnaire responses are for academic and research purposes and will be treated in strict confidence.

* Required field

A. Background Information

Gender (Choose one of the following) *

- ☐ ☐ Male
- ☐ ☐ Female

What is your current year of study? *

- ☐ ☐ Second year of study
- ☐ ☐ Third year of study
- ☐ ☐ Pre-service- PGDE
- ☐ ☐ Other

Have you used any of the social networks below? *








Indicate by ticking

- ☐ ☐ Face book
- ☐ ☐ Twitter
- ☐ ☐ Whatapps
- ☐ ☐ Linkedin
- ☐ ☐ Myspace
- ☐ ☐ Other
- ☐ ☐ None of the above

Please indicate how you engaged with the social networks highlighted above? *

I was introduced to using Information and Communication Technologies (ICTs) in teaching and learning through the following ways*







Indicate by ticking

- ☐  At high school
- ☐  At the University
- ☐  Self-directed reading of ICT resources/materials
- ☐  Taught my self
- ☐  Assisted by a friend
- ☐  Other/please specify
- ☐  None of the above

B. Construction of Historicity on a Wiki platform

1). How do you access the History Education Herm wiki platform? *

Indicate by ticking

- ☐  Use a mobile phone for access
- ☐  Use a desktop computer for access
- ☐  Use my personal laptop for access
- ☐  Use the computer laboratory
- ☐  Use my friend/relatives' laptop for access
- ☐  Use the Internet Cafe

- ☐ Other/ Please specify

2). I used the following to familiarize myself with the History Education Herm wiki platform *

- ☐ PBwiki User guide provided under Access& Play
- ☐ I played the You tube video under Access & Play
- ☐ I played around with the Wiki and taught myself
- ☐ I consulted a friend
- ☐ I consulted the educator
- ☐ I had prior knowledge of using the Wiki platform
- ☐ Other

3). I shared the following resources about my family/culture history *

Indicate by ticking






- ☐ Written texts
- ☐ Photographs/pictures
- ☐ Newspaper article
- ☐ Video clips
- ☐ Audio recording/podcast
- ☐ Web links
- ☐ Other
- ☐ None of the above

4). Describe something significant/interesting about your family/cultural history *

5). Why do you think sharing your family history above is significant/interesting? *

6). Describe something interesting about another member of the Herm wiki group's family/cultural history *

7a). Sharing something about my family/cultural history on the Herm Wiki platform has made me appreciate my cultural heritage and I feel part of history *

- ☐  Strongly Agree
- ☐  Agree
- ☐  Strongly Disagree
- ☐  Disagree
- ☐  None of the above

7b). Give a reason for your choice of response above *

8.) I consulted the following sources of information to enrich my understanding of Ethnicity in Uganda *

Indicate by ticking

- ☐ ☐ Text books in printed format
- ☐ ☐ Text books in electronic format
- ☐ ☐ Newspaper articles
- ☐ ☐ Journal articles
- ☐ ☐ Other web sources
- ☐ ☐ Visited historical sites/museum
- ☐ ☐ Visited an elder/story teller
- ☐ ☐ Read other members' posts on Ethnicity in Uganda
- ☐ ☐ Other/Please specify

9). Give reasons for your choice of sources of Information highlighted above *

10). I contributed to the history meaning making process under the topic Ethnicity in Uganda in the following ways *

Please tick each activity that you got involved in

- ☐ ☐ Made postings on Ethnicity in Uganda
- ☐ ☐ Responded to another member's question
- ☐ ☐ Edited a member' contribution
- ☐ ☐ Inquired about Ethnicity in Uganda
- ☐ ☐ Engaged in a conversation/argument on a wiki
- ☐ ☐ Commented on a member's post
- ☐ ☐ Engaged in group discussions about Ethnicity in Uganda

- ☐ ☐ Made reflections on the Wiki platform
- ☐ ☐ Linked the Wiki to the face book page
- ☐ ☐ Shared a Video Clip
- ☐ ☐ Shared an audio recording/podcast
- ☐ ☐ Uploaded pictures
- ☐ ☐ Shared web links
- ☐ ☐ Invited and introduced members to the Herm wiki platform

11). How did sharing the ticked activities highlighted above improve your understanding of Ethnicity in Uganda? *

12). I obtained the following skills during my engagement with the history meaning making process on the Herm wiki platform *

Indicate by ticking

- ☐ ☐ Critical thinking or Thinking historically
- ☐ ☐ Problem solving skills
- ☐ ☐ Collaborative/team building skills
- ☐ ☐ Information Literacy skills
- ☐ ☐ Typing/writing skills
- ☐ ☐ Reflection skills
- ☐ ☐ Analytical skills
- ☐ ☐ Other
- ☐ ☐ None of the above

13). Briefly explain how you obtained the above mentioned skills? *



14). Which teaching methods would you use to facilitate learning of Ethnicity in Uganda in a history lesson? *

Indicate by ticking

- ☐ ☐ Story telling/lecture method
- ☐ ☐ Group discussions
- ☐ ☐ Inquiry methods
- ☐ ☐ Discovery methods
- ☐ ☐ Case study
- ☐ ☐ Project -Field visits to historical sites
- ☐ ☐ Role play/ Drama
- ☐ ☐ Other/ please specify

15). Briefly explain why you would use the above mentioned methods to facilitate the teaching and learning of Ethnicity in Uganda *



16). Did your engagements with the different steps (Access& play, Introductions, pictures, images and videos etc.) on the Herm wiki site improve your understanding of history?

- ☐ Yes
- ☐ No
- ☐ Not sure

17a). If Yes/No, how was your knowledge improved/not improved?

17b). Suggest ways of improving the construction and interpretation of history meanings on the Herm wiki platform *

18a). Active construction of history through commenting, making posts on Herm wiki platform is one way of making history relevant and interesting in the 21st century learner *






Indicate by ticking

- ☐ Strongly Agree
- ☐ Agree
- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Other

18b). Briefly explain your choice of response above. *

19a). Active construction of history meanings on the Herm wiki platform has enabled me learn lessons from the past that influence the present occurrences and make projections for the future? *





Indicate by ticking

- ☐  Strongly Agree
- ☐  Agree
- ☐  Strongly Disagree
- ☐  Disagree
- ☐  Other

19b) .Briefly explain your choice of response above *

C. Authenticity of history meanings collectively constructed on a Wiki platform

20a). I shared my pre-understanding of history teaching and learning in Uganda on the Herm wiki platform through

- ☐  Reflecting on the current teaching of history at the secondary school level
- ☐  Through continuous consultation of multiple sources of history resources
- ☐  Through engaging in conversations and agreement with other members on the choice of historical information posted
- ☐  By referring to the Lower Secondary Social Studies Reformed Curriculum

- ☐ Listening to the uploaded videos and related texts on teaching history in the 21st Century
- ☐ Other/ Specify
- ☐ None of the above

20b). Briefly explain how your choice of response mentioned above was achieved/not achieved

21a). I consulted and interpreted the following sources of historical information to enrich/validate my understanding of Ethnicity in Uganda

Indicate by ticking

- ☐ ☐ History textbooks
- ☐ ☐ Journal articles
- ☐ ☐ Newspaper articles
- ☐ ☐ Historical video clips
- ☐ ☐ Photographs/pictures/images
- ☐ ☐ Field visits to historical sites/museum
- ☐ ☐ Consulted an elder/story teller
- ☐ ☐ Other/ specify
- ☐ ☐ None of the above

21b). Briefly explain how your choice of response mentioned above was achieved/not achieved

22a). What were the possibilities/merits of engaging in constructing of history meanings/ Ethnicity in Uganda on the Herm Wiki platform?



22b). What challenges did you encounter during the process of constructing history meanings/ Ethnicity in Uganda on a Wiki platform



23a) Suggest ways of improving the history meaning making process on a Wiki platform



23b). Any other things you may want to share about your experience of construction of history meanings on a Herm Wiki platform?

APPENDIX F

INTERVIEW GUIDE

QUESTIONS ALIGNED TO RESEARCH QUESTIONS THEMES AND REVISED DESIGN PRINCIPLES AS STEPS.

Construction of Historicity on a Wiki platform

Step 1: Access and play

1. How did you gain access to the History Education Hermwiki site?
2. Describe how you familiarized yourself with the features on the Access and play page of the Hermwiki site?

Step 2: Introductions- Cultural/family History

3. What resources (written texts, pictures, newspapers extracts, video clips, and audio recordings) did you share about your family/cultural history?
4. To what extent did sharing your family/cultural history make you appreciate your cultural heritage or make you feel part of history?
5. How did sharing your family/cultural history help you make sense of the present situation?
6. How does reading about another person's family history improve your appreciation of other people's cultural?

Step 4: Making shared interpretation of History meanings

7. How did your dialogical engagements and Wiki activities improve your understanding of history particularly Ethnicity in Uganda?

Step 5: Open questioning and Clarifications

8. What skills did you acquire as a result of constructing of History meanings (Ethnicity in Uganda) on the Hermwiki platform?
9. Which teaching methods would you use to facilitate the learning of Ethnicity in Uganda?

Authenticity of History meanings on the Wiki platform

10. List the number of resources that you can consult to understand history (Ethnicity in Uganda) better?
11. Why would you use a number of resources to understand history better?
12. Did you ask questions, add and edit each other's posts (review) on the Wiki platform?
How did you achieve/not achieve this?

Step 3: Preconception of History Education

13. Share your views on the current teaching of history in Uganda? Methods used to teach/ how where you taught?

Step 6: Reflection and Framing History

14. To what extent does your participation in history meaning making process on the Wiki platform make history relevant and interesting?
15. What are the benefits and limitations of using a Wiki platform to construct meanings and learn Ethnicity in Uganda?
16. Suggest ways of improving the understanding of history meanings on the Wiki platform?
17. Please share anything else that you would want to discuss about the history meaning making process hosted on a Wiki platform?

APPENDIX G

OBSERVATIONAL GUIDE

Formulated design principle-Implementation1	Revised designprinciple-Implementation2	Revised designprinciple-Implementation3	Educator's activity on the Wiki	Student's activity on the Wiki
To enable access and motivation	To enable access and play	To enable access and play		
To promote online socialization	To promote online introductions	To promote online introductions		
To support Information Exchange	To support preconceptions of History Education	To support preconceptions about History Education`		
To promote knowledge construction	To make shared interpretations of history meanings	To make shared Interpretations of history meanings		
To foster development	To support reflections and framing history	To support reflections and framing history-Retested		

APPENDIX H

CONSENT FORM

Researcher Name:

Name of Institution:

Dear participant,

I would like to invite you to take part in this research study titled “*Towards a Pedagogical framework for construction of historicity; A case of using Wikis among Pre-service teachers at Makerere University.*” which is being undertaken in partial fulfillment of the requirements for the award of degree of Doctor of Philosophy Education degree from the University of Cape Town. You have been selected to take part in the study because you are a pre-service teacher taking history methods. You are requested to be as open and frank as possible. Your participation remains anonymous and data will be used for academic and research purposes only and will be treated in strict confidence.

The following conditions will be met:

1. Your participation in this study is voluntary. You have the right to withdraw at any time should you wish to do so.
2. Audio recordings from the interviews will not be used for any other purpose other than this study.

I agree for the information I give to be used for the purpose outlined above only.

Name _____

Signature _____

Date _____

APPENDIX I

DATA ANALYSIS EXTRACT

Key research questions:

- How is historicity constructed on the Wiki platform among Pre-service teachers at Makerere University?
- How is authenticity achieved on the Wiki platform among Pre-service teachers at Makerere University?
- What design principles guide a pedagogical framework for construction of historicity?

Table 1 representation of the open coding aligned to the Historical Hermeneutics theory

Open Codes	Properties	Examples in participants' words
Historical understanding	<ul style="list-style-type: none"> -How people make sense of the human past -Evidence/research and interpretation of the past -Imaginations -Empathy 	<ul style="list-style-type: none"> -Analyzing and reflecting on the past - Acquired knowledge about the past- Case study – Ethnicity –Female Genital Mutilation -Love and respect other people's cultures and values -Accept diversity -Interaction& Interpretation of history meanings. -Visual understanding of history Obtained historical information that acted as a stepping stone for further research. -Comments are made and accessed by other members on the platform
Collaboration	<ul style="list-style-type: none"> -Online interaction -Reading other members' posts -Participation -Comparison with other posts -Dialogue -Conversations -Questioning& answering -Sharing 	<ul style="list-style-type: none"> -I read other members' posts and compared it with what I obtained from text books -Through online interaction, I discovered a lot of information that I did not know -Team work with other members as everyone shared their own view with others -Conversations on the Wiki widened my knowledge -I responded to another member's question
Family History	<ul style="list-style-type: none"> -Culture practices -Heritage 	<ul style="list-style-type: none"> -My culture is significant informs others about our values

	<ul style="list-style-type: none"> -Lineage -Bondage 	<ul style="list-style-type: none"> -I love the wealth of cultural heritage from Buganda and Sebei ; I reflect on my own culture -Family history is interesting because it shows a transition that human beings and society have undergone -Respect and appreciate other cultures - Traces origin-values and cultures are updated
Multiplicity of views	<ul style="list-style-type: none"> -Multiple sources -Open questioning & answering -Dialogue -Interpretation 	<ul style="list-style-type: none"> -I consulted many history sources to understand Ethnicity in Uganda -Used primary and secondary sources to beef up my understanding -I received numerous comments and responses from members on the Wiki platform
Relevancy of history	<ul style="list-style-type: none"> -Linkage between past and present -Aligned to learner needs -Participating and interpreting history -Reflection 	<ul style="list-style-type: none"> -If you do not know your past, you will never predict where you are going -I feel part of history - Understand that history knowledge is relative and not static -Sharing videos, audios makes you feel part of history -Increase respect for elders from the young generation
Dialogical methods of teaching History		

Table 2: Linking open to axial and selective codes

Open codes	Axial codes	Selective codes
Historical Understanding	- Learning individual self and through team work	- Interpretation
Collaboration	Interactions	Dialogue
Family history	Culture	Interpretation
Multiplicity of views	Openness to meanings	Validation
Relevancy of history	Reflection	Parts & whole

Excel data Analysis

Unique ID	Participant	Type	Gender	Year of Number	Data	Historicity	Dialogue	Family History	Authenticity	Interpretation
1	AidPGDE	Questionnaire	female	PGDE	1. My culture is significant because it keeps others			Culture		
2	AidPGDE	Questionnaire	female	PGDE	2. informed about the cultural values of society and	x				
3	AidPGDE	Questionnaire	female	PGDE	3. we come to appreciate different cultures.			Culture		
4	AidPGDE	Questionnaire	female	PGDE	4. I consulted many history sources to understand	Reading		x		
5	AidPGDE	Questionnaire	female	PGDE	5. Ethnicity in Uganda.				x	
6	AidPGDE	Questionnaire	female	PGDE	6. Using many sources, I researched historical events with				x	
7	AidPGDE	Questionnaire	female	PGDE	7. hands on, researching for historical facts, driving				x	
8	AidPGDE	Questionnaire	female	PGDE	8. social dimensions.				x	
9	AidPGDE	Questionnaire	female	PGDE	9. Reading and comprehending members' comments,	Reading			x	
10	AidPGDE	Questionnaire	female	PGDE	10. critiquing some after critical thinking historically.					
11	AidPGDE	Questionnaire	female	PGDE	11. From the posted questions, I responded to some		Conversation			
12	AidPGDE	Questionnaire	female	PGDE	12. analysed and reflected on the past.	x				
13	AidPGDE	Questionnaire	female	PGDE	13. Members have shared with us values of their		Sharing	x	x	
14	AidPGDE	Questionnaire	female	PGDE	14. societies, with continuous reply and responses that		x			
15	AidPGDE	Questionnaire	female	PGDE	15. that keeps us wanting to write more comments.	x				
16	AidPGDE	Questionnaire	female	PGDE	16. With this, we can share part of history					
17	AidPGDE	Questionnaire	female	PGDE	17. The platform required a lot of typing, reading and	Reading				
18	AidPGDE	Questionnaire	female	PGDE	18. analysing and reflecting on the past.					
19	AidPGDE	Questionnaire	female	PGDE	19. I am now knowledgeable about Ethnicity particularly	x				
20	AidPGDE	Questionnaire	female	PGDE	20. Female Genital Mutilation.	x				
21	AidPGDE	Questionnaire	female	PGDE	21. Using the Wiki platform makes learning history	x				
22	AidPGDE	Questionnaire	female	PGDE	22. interesting because it is a good way of learning					
23	AidPGDE	Questionnaire	female	PGDE	23. up with the digital age.					
24	AidPGDE	Questionnaire	female	PGDE	24. Active participation has made me appreciate		Sharing			
25	AidPGDE	Questionnaire	female	PGDE	25. the importance of history. It gives me a new vision					
26	AidPGDE	Questionnaire	female	PGDE	26. past, you can learn a lot about your roots.					
27	AidPGDE	Questionnaire	female	PGDE	27. There is no way I could interpret and understand	x				
28	AidPGDE	Questionnaire	female	PGDE	28. history without consultation and research from	Reading				
29	AidPGDE	Questionnaire	female	PGDE	29. primary and secondary sources.			x		
30	GeorPGDE	Questionnaire	Male	PGDE	1. I got some information regarding Ethnicity which can	Reading				
31	GeorPGDE	Questionnaire	Male	PGDE	2. act as a stepping stone for further research.					
32	GeorPGDE	Questionnaire	Male	PGDE	3. I came to understand the importance of history					
33	GeorPGDE	Questionnaire	Male	PGDE	4. reading and not just facts.					
34	GeorPGDE	Questionnaire	Male	PGDE	5. There is need for wide reading to consult various	Reading				
35	GeorPGDE	Questionnaire	Male	PGDE	6. sources before making posts.				x	
36	GeorPGDE	Questionnaire	Male	PGDE	7. I love the wealth of cultural heritage from Buganda			Culture		
37	GeorPGDE	Questionnaire	Male	PGDE	8. and Sebei cultures. It made me reflect on my own culture	Reflection		x		
38	AminPGDE	Questionnaire	female	PGDE	1. We celebrate our family history at introduction			x		
39	AminPGDE	Questionnaire	female	PGDE	2. ceremonies.			x		
40	AminPGDE	Questionnaire	female	PGDE	3. Sharing historical videos, photos make you feel like		Sharing		x	
41	AminPGDE	Questionnaire	female	PGDE	4. you are available by the time it has passed					
42	AminPGDE	Questionnaire	female	PGDE	5. Realized that, whatever we follow in our family is			x		
43	AminPGDE	Questionnaire	female	PGDE	6. our history. History is a key to understanding the past.					

51	AminPGDE	Questionnaire	Female	PGDE	34	circumcision to both sexes						
52	AminPGDE	Questionnaire	Female	PGDE	35	obtained a number of skills through reading other	Reading					
53	AminPGDE	Questionnaire	Female	PGDE	36	people's posts, textbooks consulting educators,						
54	AminPGDE	Questionnaire	Female	PGDE	37	cooperating with others and at the end, I tried to						
55	AminPGDE	Questionnaire	Female	PGDE	38	to analyse and come up with my own view.	Analysis					
56	AminPGDE	Questionnaire	Female	PGDE	39	Ethnicity helps us to live harmoniously with other						
57	AminPGDE	Questionnaire	Female	PGDE	20	ethnic groups, appreciate and respect their values.						
58	Were 2	Questionnaire	Male	VR 2	1	family history is interesting because it shows the						
59	Were 2	Questionnaire	Male	VR 2	2	transition that human beings and society has						
60	Were 2	Questionnaire	Male	VR 2	3	undergone in the present, following different conditions.						
61	Were 2	Questionnaire	Male	VR 2	4	relating with generally socio-economic issues.						
62	Were 2	Questionnaire	Male	VR 2	5	The text books in electronic format had readily						
63	Were 2	Questionnaire	Male	VR 2	6	and updated information, images and video						
64	Were 2	Questionnaire	Male	VR 2	7	coins were effective. Visiting the historical museum						
65	Were 2	Questionnaire	Male	VR 2	8	helped me see what people actually used in the past						
66	Were 2	Questionnaire	Male	VR 2	9	therefore giving me a real picture						
67	Were 2	Questionnaire	Male	VR 2	10	When developing a video, we interviewed an old						
68	Were 2	Questionnaire	Male	VR 2	11	generation about ethnicity and this widened my						
69	Were 2	Questionnaire	Male	VR 2	12	scope of understanding.						
70	Were 2	Questionnaire	Male	VR 2	13	through the process of active discussion, I	Sharing					
71	Were 2	Questionnaire	Male	VR 2	14	discovered a lot of information that I did not know						
72	Were 2	Questionnaire	Male	VR 2	15	learners use the platform to ask questions about	Conversations					
73	Were 2	Questionnaire	Male	VR 2	16	ethnicity and by being answered more is learnt.						
74	Were 2	Questionnaire	Male	VR 2	17	Let family's members and friends be involved						
75	Were 2	Questionnaire	Male	VR 2	18	with technology and resources to be involved						
76	Were 2	Questionnaire	Male	VR 2	19	cutting up content ourselves						
77	Were 2	Questionnaire	Male	VR 2	20	Through people's posts and contributions and	Sharing					
78	Were 2	Questionnaire	Male	VR 2	21	contributions about their cultures in the past						
79	Were 2	Questionnaire	Male	VR 2	22	and how societies are behaving now, I can easily						
80	Were 2	Questionnaire	Male	VR 2	23	drawn from the information I could see on the platform						
81	Were 2	Questionnaire	Male	VR 2	24	contributions						
82	NamwaYR2	Questionnaire	Female	VR 2	1	managed to visit online courses and courses						
83	NamwaYR2	Questionnaire	Female	VR 2	2	visited relevant historical pictures thus						
84	NamwaYR2	Questionnaire	Female	VR 2	3	giving me a better understanding.						
85	NamwaYR2	Questionnaire	Female	VR 2	4	I know that whether we agree with other						
86	NamwaYR2	Questionnaire	Female	VR 2	5	Cultures or not, we have to respect them. We						
87	NamwaYR2	Questionnaire	Female	VR 2	6	also appreciate our cultures as well.						
88	NamwaYR2	Questionnaire	Female	VR 2	7	Initially, my judgement about ethnicity was						
89	NamwaYR2	Questionnaire	Female	VR 2	8	biased and prejudiced all that changed after						
90	NamwaYR2	Questionnaire	Female	VR 2	9	my interaction with the Namwa's platform	Conversations					
91	NamwaYR2	Questionnaire	Female	VR 2	10	agreed to have an objective view about the	Analysis					
92	NamwaYR2	Questionnaire	Female	VR 2	11	different versions of cultures rather than a biased						
93	NamwaYR2	Questionnaire	Female	VR 2	12	prejudiced one.						
94	NamwaYR2	Questionnaire	Female	VR 2	13	Worry when it came to consulting experts it was not						
95	NamwaYR2	Questionnaire	Female	VR 2	14	it ended back to the past and socio-economy which						

255	AminPGDE	Interview	Female	PGDE	6	through with the research, we can know the real						
256	AminPGDE	Interview	Female	PGDE	7	what was written and compare it to the present. Hence						
257	AminPGDE	Interview	Female	PGDE	8	in the questionnaire responses.						
258	AminPGDE	Interview	Female	PGDE	9	consult many historical resources, look at how they	Reading					
259	AminPGDE	Interview	Female	PGDE	10	relate to each other and come up with your views.	Analysis					
260	GeoPGDE	Interview	Male	PGDE	1	As a historian, I felt enriched to read about other						
261	GeoPGDE	Interview	Male	PGDE	2	people's history that enriched my knowledge scope.						
262	GeoPGDE	Interview	Male	PGDE	3	Geo-Pedia is a good platform to post knowledge on						
263	GeoPGDE	Interview	Male	PGDE	4	researching, there must be a lot of knowledge						
264	GeoPGDE	Interview	Male	PGDE	5	through our team or a language with the world.						
265	GeoPGDE	Interview	Male	PGDE	6	I responded to other people's posts, made	Conversations					
266	GeoPGDE	Interview	Male	PGDE	7	clarifications and edited posts.						
267	GeoPGDE	Interview	Male	PGDE	8	history is important but it follows circumstances						
268	GeoPGDE	Interview	Male	PGDE	9	of the time. I consult different sources to get an						
269	GeoPGDE	Interview	Male	PGDE	10	an overview, make my own conclusions which may	Analysis					
270	GeoPGDE	Interview	Male	PGDE	11	not be far from the truth. Ignorance of one's						
271	GeoPGDE	Interview	Male	PGDE	12	background is ignorance of who we are.						
272	Were 2	Interview	Male	VR 2	1	I disagree with some cultures like the widow						
273	Were 2	Interview	Male	VR 2	2	culture of Female Genital Mutilation and the						
274	Were 2	Interview	Male	VR 2	3	culture in Northern Uganda where people						
275	Were 2	Interview	Male	VR 2	4	men and women fight, the successful one gets						
276	Were 2	Interview	Male	VR 2	5	married. Look at the culture, does it respect						
277	Were 2	Interview	Male	VR 2	6	human rights, does it involve making a personal						
278	Were 2	Interview	Male	VR 2	7	and group choice.						
279	Were 2	Interview	Male	VR 2	8	To brief up my understanding of ethnicity, I looked at						
280	Were 2	Interview	Male	VR 2	9	photos, interviewed some one from the society						
281	Were 2	Interview	Male	VR 2	10	culture, watched videos and asked questions for						
282	Were 2	Interview	Male	VR 2	11	clarification on the Wala platform	Conversations					
283	Were 2	Interview	Male	VR 2	12	During my school days I was taught ethnicity						
284	Were 2	Interview	Male	VR 2	13	but it was abstract but the video engage pictures,						
285	Were 2	Interview	Male	VR 2	14	videos, texts, use of personal examples which makes						
286	Were 2	Interview	Male	VR 2	15	learning more exciting and interesting.						
287	NamwaYR2	Interview	Female	VR 2	1	My knowledge about ethnicity was widened as I was						
288	NamwaYR2	Interview	Female	VR 2	2	able to read posts on the web and internet.	Reading					
289	NamwaYR2	Interview	Female	VR 2	3	I do not support some cultures like the widow						
290	NamwaYR2	Interview	Female	VR 2	4	culture of Female Genital Mutilation because its						
291	NamwaYR2	Interview	Female	VR 2	5	consequences are not good and the bible does not						
292	NamwaYR2	Interview	Female	VR 2	6	support it. I responded to other people's posts on	Conversations					
293	NamwaYR2	Interview	Female	VR 2	7	the web added some content, deleted some poor						
294	NamwaYR2	Interview	Female	VR 2	8	spelling errors.						
295	BukemaYR2	Interview	Male	VR 2	1	I am a visual learner. I want a lot from the						
296	BukemaYR2	Interview	Male	VR 2	2	videos uploaded on the platform, the photos, and						
297	BukemaYR2	Interview	Male	VR 2	3	pictures on ethnicity in Uganda.						
298	BukemaYR2	Interview	Male	VR 2	4	We should not forget our own history as we should						
299	BukemaYR2	Interview	Male	VR 2	5	understand the history of our people and the world.						

408	Ocaya YR 3	Interview	Male	YR 3	13	in history because it helps us to preserve and	X					
409	Ocaya YR 3	Interview	Male	YR 3	14	communicate our cultures and we get to know our						
410	Ocaya YR 3	Interview	Male	YR 3	15	languages better.	X					
411						Access and play						
412	Participant	Observation				20 participants accessed/played with the site at						
413	Participant	Observation				Introductions						
414	Participant	Observation			1	All participants on the Herwiki platform indicated			X			
415	Participant	Observation			2	a link to a cultural inclination, some talked about				Culture		
416	Participant	Observation			3	their families, while others commented about others		Conversation	X			
417	Participant	Observation			4	members' families. Also, some participants criticized				Culture		
418	Participant	Observation			5	, saying that they were primitive and disrespected						
419	Participant	Observation			6	disrespected human rights.						
420	Participant	Observation			7	Some participants asked questions about other		Conversation				
421	Participant	Observation			8	cultures and sought for clarification and responses		Conversation		Culture		
422	Participant	Observation			9	provided for example, Why should one remain						
423	Participant	Observation			10	with the culture of female Genital Mutilation that						
424	Participant	Observation			11	dis respects Human rights depriving girls from sex?						
425						Pictures, images, audios & Videos						
426	Participant	Observation			1	Some participants on the Herwiki platform			X			
427	Participant	Observation			2	uploaded pictures about the culture of FGM			X			
428	Participant	Observation			3	and attached videos of the culture of FGM among				X		
429	Participant	Observation			4	the Sabiny were uploaded together with videos				X		
430	Participant	Observation			5	for the Buganda and Ankole culture.				X		
431	Participant	Observation			6	This was followed by posts, comments, questions		Conversation				
432	Participant	Observation			7	and responses on the cultural pictures uploaded.		X				
433						Preconceptions of History						
434	Participant	Observation			1	Many questions were asked in regard to members						
435	Participant	Observation			2	posts on the current teaching of History. Participants						
436	Participant	Observation			3	listened to the video played on teaching history						
437	Participant	Observation			4	in the 21st century and recommended the use of						
438	Participant	Observation			5	modern tools to capture the 21st century learner.						
439						Exchanging History Artifacts						
440	Participant	Observation			1	Many historical videos, pictures, audios and				X		
441	Participant	Observation			2	researched posts on Ethnicity were shared on the				X		
442	Participant	Observation			3	platform. Many indicated a new learning of Ethnicity		Sharing				
443	Participant	Observation			4	on the platform by reading other participants posts,		Reading	Conversation			
444	Participant	Observation			5	listening to videos, audios that made learning	X					
445	Participant	Observation			6	History exciting and fun.	X					
446	Participant	Observation			7	There were questions asked for clarification on the		Conversation				
447	Participant	Observation			8	platform by reading other participants' posts and		Conversation				
448	Participant	Observation			9	posts and various dialogical responses given.		Conversation				
449						Historical Interpretation						
450	Participant	Observation			1	Different sources of information were used to				X		

465	Participant	Observation		6	questions. It makes the learning of History focus	x				
466	Participant	Observation		7	on different interpretations and different meanings				x	
467	Participant	Observation		8	from different people				x	
468	Participant	Observation		9	My engagement with the platform, I have gotten					
469	Participant	Observation		10	chance to broaden my understanding of history	x				
470	Participant	Observation		11	having recognized the origin of different cultures	x				
471	Participant	Observation		12	with different cultural attachment/cultural diversity				Culture	
472	Participant	Observation		13	have learnt that mistakes that happened in the past	x				
473	Participant	Observation		14	should not be repeated. Participants commenting		Conversation			
474				15	on each others' posts					
475				16	Open Questioning & Answering					
476	Participant	Observation		17	Many participants asked questions mainly focusing		Conversation			
477	Participant	Observation		18	on the relevancy of History to the 21st century		Conversation			
478	Participant	Observation		19	in some today responses were given and provided		Conversation			
479	Participant	Observation		20	to clarifications					
480										
481	Personal	Blog			My preconceptions about History teaching in Uganda					
482	Personal	Blog								
483	Personal	Blog		1	History teaching in Uganda is aligned to passing	x				
484	Personal	Blog		2	Examinations, completing the Examination oriented	x				
485	Personal	Blog		3	History syllabus	x				
486	Personal	Blog		4	History as a discipline is compulsory at the Ordinary	x				
487	Personal	Blog		5	Advanced level. Ugandan History teaching is	x				
488	Personal	Blog		6	anchored on the British Colonial Education system	x				
489	Personal	Blog		7	that upheld the study of foreign History more than	x				
490	Personal	Blog		8	the local History of Uganda	x				
491	Personal	Blog		9	Since Uganda's Independence little has been	x				
492	Personal	Blog		10	done to revise the history syllabus. To capture	x				
493	Personal	Blog		11	learner interests and make learning more relevant	x				
494	Personal	Blog		12	and real. European History should be studied through	x				
495	Personal	Blog		13	should be studied through case studies and picking	x				
496	Personal	Blog		14	lessons from their history. Plans are underway to	x				
497	Personal	Blog		15	to revise the new Lower secondary History	x				
498	Personal	Blog		16	curriculum to focus on learner needs work skills	x				
499	Personal	Blog		17	Teaching History is still teacher centered mainly	x				
500	Personal	Blog		18	because of the need to cover and accomplish the	x				
501	Personal	Blog		19	accomplish the history syllabus. Most teachers teach	x				
502	Personal	Blog		20	the way they were taught, authoritarian with the	x				
503	Personal	Blog		21	learner presented as submissive and receiving	x				
504	Personal	Blog		22	information from the teacher	x				
505	Personal	Blog		23	One and participant offered train others through		Conversation			
506	Personal	Blog		24	presenting a well designed Power point presentation	x				
507	Personal	Blog		25	presentation based on the different stages of the	x				
508	Personal	Blog		26	the Wku platform. Over the years, I have observed	x				
509	Personal	Blog		27	that, most students learn from their 'Waku'	x				